



HØGSKULEN I VOLDA

## Masteroppgåve i yrkesretta spesialpedagogikk

**Inclusion of children with visual impairment in regular primary schools in Malawi: *An investigation of how regular primary school teachers teach children with visual impairments in ordinary classrooms at Ekwendeni primary school.***

**Jennipher Mbukwa**

**June, 2009.**

## **Acknowledgements.**

This thesis looks at how teachers teach children with visual impairments in ordinary classrooms. Through this study, I have had a lot of good experience and have learned a lot of things from the field work. The writing process has also been a development process for me towards researching.

I therefore want to give a big thank you to my supervisor, Professor Peder Haug of Høgskolen I Volda, for his constructive guidance and also for inspiring me throughout the planning, implementation and writing the report of the research project.

This study would not have been successful without participation and cooperation of all teachers of Ekwendeni Primary School, and for this I say thank you. I also want to thank the former north and south Fredskorpset Youth Exchange Program coordinators; Norlief Vik, Odd Ragnar Hunnes and Mathews Chilambo for helping me get this scholarship. Thanks to my Aunt Ellie Kapenda for raising me up.

I dedicate this work to my loving fiancé Timothy Ngwira. Thank you for your support and for waiting for me!

Volda, 17. 06. 2009.

Jennipher Mbukwa

## Table of content

Acknowledgements .....	i
Table of content .....	ii
List of Abbreviations .....	vii
1.0 CHAPTER ONE: INTRODUCTION .....	1
1.1 Background information to the research problem.....	1
1.2 Purpose of research.....	3
1.3 Research Question .....	3
1.4 Significance of the study.....	4
1.5 Understanding the concept of Inclusion: What is inclusive education? .....	4
1.6 Organization of the thesis.....	6
2.0 CHAPTER TWO: THEORETICAL FRAMEWORK.....	7
2.1 Introduction.....	7
2.2 Understanding Visual Impairments- What is VI? .....	7
2.3 Problems caused by visual impairment and its implication to learning. ....	8
2.3.1. <i>Difficulties in Visual Functioning</i> .....	9
2.3.2 <i>Difficulties in Perception and Concept Formation</i> .....	10
2.3.3 <i>Problems in Social and Emotional Developments</i> . ....	10
2.4 Teaching and learning of visually impaired children from a socio-cultural perspective. ....	11
2.4.1 <i>Zone of proximal development (ZPD)</i> . ....	14
2.4.2 <i>Guided participation</i> .....	15
2.4.3 <i>Mediated Learning Experience</i> .....	17
2.4.4 <i>Socialization through Verbal Instructions or dialogue</i> .....	18
2.4.5 <i>Emphasis on Concrete Experience</i> .....	19

2.5 Aspects which are vital in planning, implementation and assessment of lessons in relation to children with visual impairments as illustrated by didactic relations theory. ....	19
2.5.1 <i>Initial circumstance of the learner</i> .....	20
2.5.2 <i>Frameworks</i> .....	20
2.5.3 <i>Goals and Objectives</i> .....	21
2.5.4 <i>Content and material</i> .....	21
2.5.5 <i>Working processes and methods</i> .....	22
2.5.6 <i>Assessment</i> .....	23
3.0 CHAPTER THREE: METHODOLOGY.....	24
3.1 Choice of research design.....	24
3.2 Study Site.....	25
3.3 Study Population. ....	25
3.4 Sample and Sampling procedure.....	26
3.5 Data Collection Methods.....	26
3.5.1 <i>Data collection instruments</i> .....	28
3.6 Data collection process.....	29
3.6.1 <i>The Pilot Study/Entry to the Main Study</i> .....	31
3.7 Organization of and Analysis of data .....	32
3.8 Ensuring Research Quality: Validity, reliability and generalization of the study.....	32
3.8.1 <i>Ethical Considerations</i> .....	35
3.9 Limitations.....	36
4.0 CHAPTER FOUR: PRESENTATION OF RESULT.....	37
4.1 Introduction.....	37
4.2 Introducing the participant teachers and the context in which the study was carried out.....	37
4.2.1 <i>Teachers level of education and years in service</i> .....	37

4.2.2 Training received by teachers in relation to teaching children who are visually impaired.....	38
4.2.3 Organization of the classrooms.....	38
4.2.4 Number of children per class.....	39
4.2.5 Sitting arrangement .....	39
4.2.6 Sitting position of VI pupils in class.....	40
4.2.7 Classroom displays.....	40
4.3 Factors teachers consider when preparing the lesson in relation to VI children.....	41
4.3.1 A visually impaired child is first and foremost a person.....	41
4.3.2 Assessing learning needs of the VI learners.....	41
4.3.3 Preparing a lesson plan.....	42
4.4 Factors teachers consider when delivering the lesson in relation to children with visual impairments .....	43
4.4.1 “Talking to my pupils: Do they hear and understand me?”.....	43
4.4.2 “Am I providing appropriate compensatory activities?” .....	44
4.4.3 “Am I being reasonable in the visual demands I am making on my pupils?” .....	44
4.4.4 “How do I grade my support to learners?”.....	44
4.5 Factors teachers take in to consideration when assessing their teaching of classes with children with visual impairments. ....	45
4.5.1 “Have VI learners understood the teaching content of the lesson?” .....	45
4.5.2 “Am I varying methods of assessing VI learners?” .....	45
4.5.3 “Would I like to be in one of my lessons if I was visually impaired?” .....	46
4.5.4 “What safety precautions should be considered in relation to VI learners in this lesson?” .....	46
4.6 Lesson implementation.....	47
4.6.1 Lesson introduction: How did teachers introduce the lessons?.....	47
4.6.2 Language of instruction.....	48
4.6.3 Teaching methods used by teachers.....	50
4.6.4 Individualized Instruction.....	51

4.6.5 Availability of teaching and learning materials and use of concrete objects.....	53
4.6.6 Mediated teaching practiced in the class.....	54
4.6.7 Step by step guidance provided by teachers during the teaching and learning process.....	55
4.6.8 Motivation and use of prompts by teachers during lesson delivery.....	56
4.6.9 Content selection and sequencing.....	57
4.6.10 VI pupils' communication with the teacher and sighted peers during classroom activities...	58
4.7 Assessment of VI children's progress.....	59
4.8 Challenges faced by regular teachers when teaching classes with children who are visually impaired and their recommendations. ....	60
4.8.1 Lack of training to regular teachers on how to handle learners with visual impairments.....	60
4.8.2 Inflexible classroom environments.....	60
4.8.3 Inadequate teaching and learning materials.....	61
5.0 CHAPTER FIVE: DISCUSSION.....	62
5.1 introduction.....	62
5.1.1 Mediation during teaching.....	62
5.1.2 Motivating VI learners to participate in the learning activities.....	64
5.1.3 Communication between teachers and VI learners in the class.....	69
5.1.4 Simplification and sequencing of the content.....	72
5.1.5 Step by step guidance of the VI learners .....	73
5.1.6 Concretisation of lessons for VI learners .....	73
5.1.7 Instructional methods used by regular teachers during lesson.....	75
5.1.8 Individualization of instruction.....	77
5.1.9 Lesson assessment in relation to children with visual impairments in ordinary.....	78
5.2 Conclusion.....	80
5.2.1 Fellowship.....	80
5.2.2 Participation of VI learners.....	81

5.2.3 Democracy.....	81
5.2.4 Benefit .....	82
6.0 CHAPTER6. CONCLUSION AND RECOMMENDATIONS FOR FURTHER RESEARCH..	83
6.1. Recommendation for further research.....	86
LITERATURE LIST.....	87
APPENDICES.....	96
<i>A. Historical background of special needs education in Malawi.....</i>	<i>96</i>
<i>B. Position of Malawi in Africa and the map of Malawi.....</i>	<i>98</i>
<i>C. Observation guide.....</i>	<i>99</i>
<i>D. Interview Guide for regular classroom teachers.....</i>	<i>101</i>
<i>E. Authorization letter.....</i>	<i>104</i>
<i>F. Pictures.....</i>	<i>105</i>

## **List of Abbreviations**

**DFID** Development for International Development

**EFA** Education for All

**FPE** Malawi Government policy of Free Primary Education

**JCE** Junior Certificate Examination

**MCE** Malawi Certificate Education

**MIITEP** Malawi Integrated In-Service Teacher Education Project

**OECD** Organization for Economic Co-operation and Development

**PSLCE** Primary School Leaving Certificate Examinations.

**REO** Regional Educational Office

**SNE** Special Needs Education

**UNICEF** United Nations International Children's Emergency Fund

**USAID** United States Agency for International Development

**VI** Visual Impairment

**ZAD** Zone of Actual Development

**ZPD** Zone of Proximal Development



## CHAPTER 1. INTRODUCTION

### *1.1 Background information to the research problem.*

A lot of research has proved that education plays a major role in the development of both individuals and societies (Carm, et al, 2003:25). From an ethical perspective, UNESCO-APPEAL (1998:4) views education as an *“intrinsic good to be cherished for its own sake and as a basic human right”* and as a *“transforming experience that leads to enlargement of one’s self and full realization of one’s potentials”*. However, in Malawi education for those who are challenged in one way or another, particularly those with visual impairment (VI), was not a priority until thirty years ago. Before then children with visual impairment were not given any special consideration in educational opportunity. Due to lack of expertise in the field of education for visually challenged children, and because of fear of taboos, people sympathizing with the visually impaired children could do nothing to help them educationally. With time, things have and are still changing towards the better for visually challenged children. One of the positive improvements is the idea that pupils with visual impairment should learn alongside their sighted peers within the same classrooms which was introduced as early as 1980. This was intended to promote equity with mainstream peers and inclusive practices in regular school classrooms (Vlachou, 2006). Thus, regular teachers regardless of their skills and knowledge carry the responsibility of teaching all the children including those who are visually impaired, with specialist teachers on hand who are responsible for extracurricular and other support services. However, since the introduction of this idea, little research has been done to investigate how the regular teachers cope in such classrooms. It is therefore the major aim of this research to find out how teachers teach ordinary classrooms which have children who are visually impaired from the teachers perspective. This chapter will start with a brief presentation of the education system of Malawi as a way of giving contextual background information of where this research was carried out.

In Malawi the education system comprises 8 years of primary education, 4 years of secondary education and 4 years of university education. The primary section enrolls children within the age range of 6 to 16 years. In 1950 the special school system, was introduced where all learners with visual impairment were taught at one boarding school by specialist teachers. In fact, this was expensive and exclusive system. The introduction of resource centre system followed. Resource Centres admit visually impaired learners; offer a boarding facility and resource room services attached to the mainstream school. In this system regular class teachers are supported by a specialist teacher who teaches special skills to visually impaired learners in the resource room which is a base

for receiving special instruction, teaching extracurricular activities, collecting, storing and producing specialised materials (Mason, *et al.*, 1997). The central issue now is how these regular class teachers manage learning needs of pupils with visual impairment in a classroom where they are being taught along with their sighted peers.

In recent years several reports have been made that schools in Malawi have enrolled children with visual impairment to learn together with ordinary children as a move to implement the Malawi Government policy of Free Primary Education(FPE) which was introduced in 1994 (Ministry of Education, 2001). Free Primary Education resulted in the abolition of school fees and the wearing of school uniform was not mandatory and education was made free. As a result of this development there was a positive response from society as enrolment for all children including those with visual impairment increased tremendously. In the first year of FPE, enrolments of children increased by over 50% from 1.9m in 1993/4 to about 3.2m in 1994/5. Net enrolments prior to FPE had been 58% for girls, increasing to 73% by 1996; and 58% also for boys, which increased to 68% by 1996. Such rapid enrolment has also increased challenges on an already weak system that even before expansion had a pupil-teacher ratio of 70:1 with 13% of teachers being unqualified and an average of 100 pupils crowding existing classrooms. Currently Malawi has 45,075 primary school teachers and 3, 200, 646 primary school pupils and requires 53, 345 more teachers in all the 33 educational districts. However Development for International Development (DFID) data suggests that the teacher shortage will continue to impact on the quality of education in the primary sector (DFID- Malawi, 2007). Some of the measures introduced to cater for such shortfalls included the creation of the Malawi Integrated In-Service Teacher Education Project (MIITEP), designed to produce 18,000 teachers at a lower cost and in a much shorter time than conventional full-time teacher training programmes. Thus, by 1997, more than half the teachers were untrained, compared with 13% before the introduction of FPE.

With the introduction of Free Primary Education (FPE), schools also experienced an increase of visually impaired pupils learning alongside their sighted peers in ordinary classrooms throughout the country. It is interesting to note that the Ministry of Education 2005 Basic Education statistics indicate that in the year 2005, there were 15 490 visually impaired learners of which 8078 were boys and 7412 were girls enrolled in ordinary primary, secondary and tertiary education institutions, the highest number since the introduction of free primary education (Ministry of Education; 2007). Such high figures of children with visual impairments in ordinary schools indicate that regular teachers are faced with difficulties in meeting the learning needs of each child, especially those with visual impairments. Suka (2006) points out that the previous teacher training institutions did not include

aspects of special needs education and inclusion in the teacher training programs. Hence most of the current serving teachers are not equipped with skills and knowledge in managing learners who require extra help in a learning situation. This calls for more work to the teachers in terms of planning to teach, and meet specific learning needs of each child accommodated in a diverse class. For more information on special needs education in Malawi, refer to Appendix A.

### **1.2 Purpose of research.**

Marks and Clapham (2005) say that education is one of the fields in which disability discrimination has been acute. For instance, Booth's (2000) review of international developments since the 1990 Jomtien World Conference on Education for All revealed that learners with disabilities continue to be the most excluded category from education and yet special needs education is a component of education for all (UNESCO, 1994). The purpose of having inclusive education is to value education of all children, also those with special needs like children with visual impairments. According to OECD (1999) there is evidence that suggests that Inclusive Education improves performance of the pupils who does not have needs for special education because the increased attention to pedagogy and curriculum adaptation generalizes teaching skills to all pupils. In this paper, inclusive education is therefore seen to provide both a long term value, which is for all children with or without visual impairment to benefit from the education alike, and a short term value which is to allow the visually impaired children to learn among the sighted peers so that they can all participate in a class fellowship and benefit equally in all educational activities alongside their peers. For this inclusion to be realized, one of the many ways is for class teachers to take a leading role in supporting all learners in regular classrooms (Dijk, 1996; Ministry of Education, 2001). As said already, ordinary teachers are not trained to provide diversified instructional methods or to cope with learners with diverse needs (Roberts & Mather, 1995), as a result many teachers in ordinary classrooms may not be able to support important interactions between VI learners' needs and instructional processes, and yet it is these interactions that are expected to bring about a meaningful learning to all children in inclusive classroom. The purpose of the study is therefore to find out how regular teachers teach their lessons in relation to children with visual impairment in the regular classroom situation from the teachers perspective. The aim is to look at factors which teachers take into consideration in preparation, implementation and evaluation of the teaching and learning process in relation to VI children.

### **1.3 Research Question**

This research is focused to answer the following main question: *How do regular teachers teach children who are visually impaired in ordinary classroom settings?*

From the above main question the following sub-questions are derived:

- *Which factors does a teacher take into consideration in preparation, implementation and assessment of lessons in order to encourage and facilitate children with visual impairment in the learning activities?*
- *What is the teacher doing in the classroom in relation to children with visual impairments?*
- *What are the challenges faced by teachers in their planning and teaching of children with visual impairment in different classroom activities?*
- *What are the teachers' recommendations to effectively deal with these challenges?*

#### **1.4 Significance of the study**

Given the current emphasis on inclusive education and Education for All (EFA) target by 2015 at local and international levels (UNESCO 2008 Global Monitoring Report), it is important to address specific issues concerning abilities and limitation of different kinds of children enrolled in primary schools, which also includes children with visual impairment. The study could therefore provide ideas about of opportunities regarding the co-existence of visual impaired children with regular teachers and sighted peers and other members of the school community where they are enrolled. Looking at Inclusive education on the part of the teachers in Malawi, one realizes that there is not much research particularly on the role of regular teachers irrespective of the diverse nature of the classrooms. This paper can therefore be viewed as giving an example of positive ways teachers do to encourage learning of children with visual impairments in various classroom activities within the ordinary classroom context. This might help reduce the rate of idleness among some of the children as well as improve the social climate of the class. This might also influence positively the attitudes of the visual impaired children towards other people in the school and vice versa. This research paper can also be looked at as a base for comparison in how teachers plan and teach children with visual impairment in regular classes in Malawi and other countries such as Norway, in a broad perspective. It is always interesting to learn how other countries are doing certain things within the same field of special needs education.

#### **1.5 Understanding the concept of Inclusion: What is inclusive education?**

The major concept in this paper that needs to be operationalised is the concept of inclusion. The concept of Inclusion has attracted much attention in recent years. However, an examination of literature and practice has shown that the term has come to mean different things to different people. As Haug (2006) says, inclusion expresses many issues on several different levels, and can be about

politics, philosophy, values, ideology, structures and results. The concept also communicates messages about systems` construction, teaching, parents` and pupils` experiences, emotions etc (Mitchell, 2005). In relation to this study, the focus will not be to go deep in to the mystery of understanding the complexity of the concept of Inclusion, but rather to give a very brief and general understanding of the concept as a general base of this study.

Broadly defined, inclusion involves that all the children, regardless of their disabilities, learning as full participants and members of their neighborhood schools (Pijl *et al*, 1997; Mushoriwa, 2001 cited Knight, 1999). Others authors like Lipsky and Gartner(1997) Ballard (1999) Booth (2003) and Mushoriwa (2001) define Inclusion as providing equal learning opportunities to all students including those with disabilities, emphasising the need for equity and justice for all learners to avoid discrimination and increase learning opportunities and participation for all within the same physical environment. Haug (2004) says that inclusion could be understood with reference to both vertical and horizontal dimensions. The vertical dimension represents different levels in the education system ranging from ideology, policy and structures, via teaching -and -learning processes to results. The index for inclusion for instance identifies three vertical dimensions of school life which include policy, culture and practice (Booth, Ainscow, Black-Hawkins, Vaughan, & Shaw, 2000). It should be pointed out that in this study the major focus will be on the practice part especially from the regular teachers` part. The horizontal dimension consists of all the elements or challenges that could or should be met on different single vertical levels. To exemplify, the frame factor theory operates with three different horizontal systems that constrain, govern and regulate the teaching process and these are: curriculum which forms the goal system, administrative apparatus which forms the frame system and judicial apparatus or rule system.

In this paper therefore, Inclusion is going to be looked at by using the four aspects that help create inclusion presented in Haug (2006) which include; increasing fellowship, participation, democracy and benefit. To increase fellowship implies that all children are members of a class or a group and that they all take part in the social life together with others. This also implicates that teaching and learning should take place within the same fellowship. To increase participation mean that one is actively taking part in the teaching and learning, being individually and collectively challenging. The pupil should be allowed to contribute to the rest of the fellowship according to qualifications, and be given opportunities to benefit from the same fellowship. To increase democracy means that every child`s voice is heard in the classroom or in the groups. In other words, all children should be given equal opportunity to voice themselves, be heard and influence what is going on the classroom or in

groups. This also implies that every school should offer easily accessible information for pupils and parents about systems, plans, rules, initiatives etc. To increase benefit implies that all children should be given an education that is to their advantage both socially and substantially (Haug, 2006). In relation to children who are visually challenged, a lot of adaptations need to be done to the school and classroom environment, teaching strategies, teaching materials, assessment methods as well as teachers attitude, among other things if inclusion, looked at from these four aspects, is to be achieved. As Haug (2006) puts it, there has to be a balance between the four aspects, and that to balance the four aspects is itself complicated, making it more difficult and almost impossible to create clear criteria beforehand. The general focus in this paper will be to look at what one can say about the realization of these four aspects of inclusion in relation to the data collected concerning how teachers teach children with visual impairments in ordinary classrooms

### **1.6 Organization of the thesis**

This research paper has been divided into six chapters. Chapter 1 gives the background information of research problem of this study. It starts by giving a brief contextual information about the education system, and history of education for the visually impaired children in Malawi. It furthermore presents the purpose of research, research question, significance of the study, understanding of Inclusion as a concept, and finally the organization of the thesis. Chapter 2 is literature review. This chapter has been divided into two parts. Part one defines what visual impairment is in this study, its causes and its implication to learning. Part two concentrates on the teaching and learning of visually impaired children seen from a social-cultural perspective and a didactic relations theory. Chapter 3 is the research methodology. This chapter presents the approaches used to gain answers to the problem under study presented in the first chapter. It describes the research design, study site, study population, sample and sampling procedure, data collection methods, instruments and process, and how data was analyzed. Issues of validity, reliability, generalization, ethical considerations and limitations of the study are also presented in this chapter. Chapter 4 gives a presentation of the results gathered. Chapter 5 discusses the findings of the research in relation to the research question and the theoretical issues of chapter 2. Conclusions of this research paper will be given in chapter 6.

## **CHAPTER TWO: THEORETICAL FRAMEWORK**

### ***2.1 Introduction***

This chapter reviews studies which have been carried out and literature which has been written on the issue of teaching children who are visually impaired in ordinary classrooms, with particular focus to Malawi. This chapter will start by defining what visual impairment means in this study, its causes and its implication to learning. Thereafter, it will look at teaching and learning of visually impaired children seen from a social-cultural perspective and illustrated by didactic relations theory.

### **2.2 Understanding Visual Impairment- *What is VI?***

In addition to hearing, smell, touch and taste, sight is one of the five senses that human beings have. As Befring and Tangen (2008) say, we are today living in a visual world with much of the information coming through sight. Examples on this are all the information we get from other people and events through newspapers, internet, and other technologies. This has led to some people saying that sight is the most important sense in today's world. On the other hand, Gunnvor Wilhelmsen (2000) rejects this thought, saying that it is difficult to prove this thought since people are very complex and life itself is so different from one person to another. All senses are equally important in personality development as well as in dealing with the challenges human beings meet in their life. However it is an undeniable fact that lack or loss of one sense, for example sight, can result into some serious consequences. Arditi & Rosenthal (1998) define visual impairment as loss of vision which constitutes a degenerative condition that cannot be corrected by conventional means, including refractive correction, medication, or surgery. Visual impairment is also perceived as an umbrella concept which includes all degrees of visual loss: mild, severe and total loss (Skjørten 1997, 35). These definitions imply that visual impairment is a consequence of loss of vision rather than the eye disorder itself. According to Kirk, Gallagher & Anastasiow (2003) visual impairment is regarded as that which falls along a continuum ranging from normal vision to profound visual disability or blindness. The smallest number of children is found at the blindness end of the continuum.

In the context of this paper the definition that is going to be used is that by Professor Ivar Lie (1998), who describes visual impairment as the distance between a person's ability and environments demand to function, in other words, the difference between the person's possibilities and the challenges he or she meets in the environment. This kind of description of visual impairment focuses on the relationship between the individual and his or her surroundings in the society.

### **2.3 Problems caused by visual impairment and its implication to teaching and learning.**

Skaalvik (1999) has highlighted two models or perspectives that can be used when looking at problems in schools, in the case of this paper, these two perspectives can be used in order to explain the problems that are faced by visually impaired children in relation to their learning. These perspectives are *the individual perspective*, and the *societal perspective*. Haug (1995) has explained the difference between these two approaches, says that the individual perspective also known as *individual pathology* is closely associated with the medical model and the social-pathological model. The common factor with these models is the fact that they all look at the individual with a problem as the problem. Haug (1995) further explains that with this approach, it becomes the work of the teacher or any other special pedagogical workers to deal with the individual that is considered as a problem in order to try to cure or solve the problem. When one uses this approach to children who are visually impaired, one will look at the VI children as being problematic and therefore requiring to be dealt with. On the other hand, there is the *societal perspective* also known as *the relational pathology* encompasses the environmental model and the anthropological model. Although there is a slight difference between the environmental model and the anthropological model, since the anthropological model acknowledges both an individual perspective as well as a societal perspectives when looking at the special pedagogical problems, these two models acknowledges that some problems are caused by the environment or surrounding, which is not in position to cater for the variation among learners. The teachers' central role becomes to adapt the school and class environment so that it suits and accommodates the different conditions of sighted and VI pupils. Therefore depending on the approach that one chooses to look at the VI problems from, will result into differences in the way of tackling the problems and also differences in their consequences. In relation to this paper, the societal approach will be adopted to illustrate the problems that children with visual impairment have and its implication to their learning. I have chosen this approach because it does not only focus on the individual that has a problem, but also looks at other factors existing in the surrounding that hinders the learning progress of children with visual impairments. In this case, regular teachers should adjust the learning environment so that it support children who are visually impaired as well.

Porter and Lacey (2008) suggest that class teachers provide minimal teaching and learning opportunities for inclusion of visually impaired students due to the limited knowledge of the implications of visual impairment toward child learning and development. Research by Hardman (1993) indicates that children with visual impairments differ from their sighted peers in some areas of



intelligence, ranging from understanding spatial concepts to a general knowledge of the world. From the very beginning of their lives therefore, children with visual impairments, need to be taught the basics of every day functioning. What sighted individuals note as everyday tasks need to be learned and practiced by the visually impaired child. Also special training in orientation and mobility skills is needed. Other areas children with visual impairments differ from their sighted peers are speech and language development, educational and social development, and orientation and mobility. It is indicated in research by Hardman (1993) that children with visual impairments are at a distinct disadvantage developing speech and language skills because they are unable to visually associate words with objects. In some instances these children may develop vocabulary words and use them out of context because they have no way of connecting them with any concrete meaning. Thus, not only special educational intervention is necessary but social intervention as well. As visual impairment imposes limitations on the children in such aspects as mobility, the range and variety of experiences and the ability to cope in different situations, visually impaired children may encounter the following learning difficulties:

### ***2.3.1 Difficulties in Visual Functioning***

Visual defects affect the children's visual functioning both inside and outside the classroom environment. However, visual problems cannot be generalized. For example, some children may have poor near vision, while others may have tunnel vision, patchy vision, or they may be susceptible to strong light and glare. But no matter what their problems are, their educational progress is invariably hampered by their visual problems which hinders them from accessing visual information due to lack of sight. Generally speaking, visually impaired children may therefore have difficulties in searching, scanning, and organizing visual information and in retrieving what has been dropped. They may be unable to read the blackboard, projected materials, print and diagrams of small sizes. According to the societal or relational perspective, it becomes the duty of the teacher to adapt the teaching in order to suit individual VI child needs. Adaptation in this context means to adjust or to modify, and convert what is there (Collins 2002). Usually, the instructional strategies that teachers generally use for learners in the regular classrooms may need to be altered when teaching learners with visual impairment. If unedited, the generally used instructional strategies might fail to meet the learning needs of pupils with visual impairments. Without such adaptations, teachers usually face the complex challenge of how to teach, what to teach, when to teach pupils with Visual impairment, and at the same time, VI children face a problem of how to learn in such non-conducive environment. Fecho (1994) postulated that some teachers reach a dilemma, as they feel guilty and at times

heartbroken when they cannot give the best assistance. Ainscow (1998) claimed that if pupils are to receive adapted education, teachers are the key persons in facilitating the education and determining the quality of the classroom environment and the choice of teaching strategies. This means that adjustment of the instructional strategies and the learning environment is fundamental but it also depends on the predisposition of schools and teachers' will as well as competence of a teacher. If the teacher has the knowledge about the abilities of and circumstances in which the VI child learns best (Wolfendale 1993), then it becomes important for the teacher to adjust the instruction to suit the VI learners abilities and needs.

### ***2.3.2 Difficulties in Perception and Concept Formation***

Severely visually impaired children may suffer from delay in cognitive development, especially in perception and concept formation. The word *perception* is described by Arne Valberg (1999) as a mental process that is resolved by sense influence. This process is a conscious sensing that leads to an organized experience. Bos and Vaughn (1998) define perception as the process of recognizing a raw, physical pattern in sensory store as representing something meaningful. Pupils who have perceptual disabilities usually have trouble interpreting and obtaining meaning from the stimuli in the environment. Children with visual impairment may therefore have difficulties in obtaining visual information and forming perception about people and things happening in their environment because of lack of first hand experiences caused by lack of sight. These difficulties will prevent them from consolidating their perceptual experiences into concepts. According to the societal or relational perspective, teachers should therefore provide stimulating situations that can allow the VI children to understand, interpret and obtain meaning of things and events in their classrooms. Instead of just focusing on the visual information, teachers can employ other forms of information that can be obtained through other sensory modalities, such as auditory, tactile, olfactory, etc.

### ***2.3.3 Problems in Social and Emotional Developments***

Befring and Tangen (2008) say that sight forms the base for motor, cognitive and social development. Therefore having a visual impairment will lead to problems in movements, cognitive and social aspects of the child. A sense of sight plays a very important role in how we relate to the surroundings around us and to how we interact with it. Children's attention is captured through a visual configuration such as a face and voices. At the same time, children use eye contact, smile, cry and babbling which we, the grown up interpolate them as social signals. Children learn to recognize people, learn about themselves, consequences of their actions and how other people react to them

through such social actions. Therefore lack of sight or having a sight problem can cause dramatic social consequences in many ways, for example; use of inappropriate facial expressions and body language when interacting with people, which may lead to lack of self-confidence and social competence and thereby lead to feelings of insecurity and anxiety. This calls for the teachers to consider and implement different teaching settings and strategies that focus on encouraging VI children to interact and develop a close and positive relation with other peers in the class unlike just concluding that the VI child is not sociable. The teacher can use group discussions, pair work, role play and others that encourage a VI child to express his or her views and at the same time enjoy interacting with peers.

The emotional development of young children who are blind may be at risk because of constraints on the children's capacity to share and respond to the feelings of others. In typical development, eye contact and voice contact are integral to first relationships (Trevvarthen & Aitken, 2001). When children cannot see, they are dependent on familiar voices and experiences in interaction to understand themselves in relation to others. Although the lack of vision may influence other aspects of their development, it is the lack of early social experience that may lead to long-term difficulties in social and emotional understanding (Palincsar and Brown, 1985). This finding highlights the challenges for teachers to interact in ways that enable children who are blind to understand more about themselves and others and be able to communicate their emotions clearly. In the absence of eye contact, the way the teacher will speak to the VI child, the tone of the teacher's voice, the choice of words used when talking to the VI child, the mood of the teacher portrayed through the humour that the teachers brings in the classroom, allowing the VI child to express himself or herself, listening attentively to what the VI child has to say in the classroom, are some of the many things that can have an impact on the development of VI child's positive emotional relationship with the teacher.

#### **2.4 Teaching and learning of visually impaired children from a socio-cultural perspective.**

The major theory that will be used in this study is the socio-cultural theory. However to understand how regular teacher teach children who are visually challenged, it is important that I first draw attention on what teaching and learning entails since it is upon understanding of these notions that the discussion on the learning of pupils with visual impairment accommodated in ordinary classrooms can be described and explored. Teaching is referred to as designed activities that promote learning (Tomlinson, 1995). This definition indicates that teaching is a goal oriented activity. Learning, on the other hand, is a goal of teaching, and learning, in terms of the development of constructs, is

essentially a different process for every individual. Bos and Vaughn (1998) look at learning as change in behavior that results in a student demonstrating new knowledge and skills. The role of a teacher is that of an educational technician who engineers or arranges the environment so that the probability of learning is increased.

There are several approaches that have been used to look at teaching and learning processes. In this paper I will give a brief presentation of some of the approaches starting with the traditional teacher-centered approach, then child centered approach and finally the sociocultural approach which forms the base of this study. From the traditional approach of teacher-centeredness towards teaching and learning process, the learner is expected to receive external knowledge, transmitted by teachers or books (Malderez & Bodóczy, 1999). This is called “transmission approach” to teaching and learning, whereby knowledge is expected to be stored in one store such as in books or in a teacher, to be transmitted via a media or teaching resource to the learner for permanent storage. Others have called this approach as the curriculum-centred, presentational, or an industrial model of education. Here the teacher is an adult who runs the show and transmits information to learners, whose job it is to ‘get it.’ In this transmission model the teacher provides an information conduit to the pupil, who is solely responsible for receiving and later retrieving this data.

The traditional teacher-centred approach is rapidly being replaced by alternative models of instruction such as the learner-centred approach, constructivist, sociocultural ideas and many more, in which the emphasis is shifting from just transmitting knowledge from the teacher to learners, to guiding and supporting pupils as they learn to construct their understanding of the culture and communities of which they are a part of (Jarvis, 2002). In the learner-centred approach, it is the student or pupil who is responsible for learning. No one else can do learning for them and their achievement of new knowledge requires active involvement and personal exploration. Proponents of learner-centered view often cite constructivist notions by arguing that learning is the province of learners, who must necessarily construct their own understandings. In this view, knowledge is acquired by learners in the process of their self-initiated inquiries and personal investigations. Constructivism, for example sees learning as two ways, with the learner linking input to their own personal experiences and perception of the world. As such input from books, people, personal experience or practice is not seen as information to be added to a store of knowledge, but rather as new perspectives to be considered and possibly used to reconstruct the learner’s existing internal knowledge (Bos and Vaughn, 1998). Learning is therefore seen as an assembly and reassembly of knowledge which may or may not include the new input, a process that last lifetime. This progressive

model is often seen in workshop types of settings in which teachers provide an environment full of opportunities and materials with which pupils may choose to engage. This model is also referred to as student or pupil-centred, participatory, exploratory, or natural-process learning.

An entirely different point of view is proposed by researchers, theorists, and teachers influenced by Vygotskian psychology and to some degree by Bakhtinian notions of dialogism, known as the sociocultural theory. Dialogic approach considers learning to be more as interaction, or dialogue (Skidmore & Gallagher, 2005). In dialogic approach the information flows from the teacher to learner and back, as well as between and among learners. Bråten (2002) says that the Vygotskian-inspired, sociocultural model is so radically different from the two most dominant models of teaching and learning; that of teacher-centred and student-centred. This is because this new model is two-sided and requires mutual effort and responsibility on the part of learners and teachers, whereas the dominant models are one-sided and place nearly complete responsibility for learning with the learner. As a result, the two-sided model requires a completely different kind of classroom and definition of teaching. Rogoff, Matusov, and White (1996) propose to call this kind of classrooms a 'community of learners' model in that, as Vygotsky suggests, it involves both active learners and more expert partners, usually adults, who will provide leadership and assistance to the less skilled learners and those who require extra help, such as children who are visually impaired, as they engage together in a community of practice. Rogoff, Matusov, and White (1996) write that learning is not about transmitting or acquiring knowledge, but is about transformation, namely about transforming the nature of one's participation in a collaborative endeavour. As the learner's participation is transformed, for example, one becomes a more active and expert member of the community of practice. In other words one becomes part of the fellowship, often moving from being an observer to participant and then to leader of collaborative activity. However, the more expert partner's participation will also be transformed as she or he learns about new ways to teach and new ways to participate and how to change her or his roles relative to the changing roles of others. I have therefore chosen this sociocultural theory to be the base of this study because of its emphasis on the need of interaction and communication between the teacher and the learners and also among learners themselves. With the use of such an approach, I believe children with visual impairments can acquire social skills which most of the times VI children lack. This model has also been chosen because it combines the teacher-centred approach and the learners-centred approach, thereby reaching a situation which can effectively support and encourage both the academical and social development of

children with visual impairments in the classroom situation. What follows now is a presentation of some of the important components comprised in the sociocultural theory.

#### **2.4.1 Zone of proximal development (ZPD)**

One of the important components in the sociocultural theory is a Vygotsky's most influential ideas relating to the zones of development, called the "zone of proximal development" (Hundeide 2003, Bråten 2002, Bos and Vaughn 1998). What a child can do alone and unassisted is a task that lies in what Vygotsky calls the Zone of Actual Development (ZAD). When a teacher assigns a task and the students are able to do it, the task is said to be within the ZAD. It means that the learners have already been taught and have mastered the skills involved in that task. I remember many times in my own teaching career when I made such an assignment and exulted at my teaching prowess when the most excellent projects were submitted. Vygotsky wouldn't have been so thrilled. He would say that the kids could already do what I asked them to do, and I had taught them nothing. The place where instruction and learning can take place is the Zone of Proximal Development (ZPD). Learning occurs in this cognitive region, which lies just beyond what the child can do alone. Anything that the child can learn with the assistance and support of a teacher, peers, and the instructional environment is said to lie within the ZPD. Vygotsky noted that

*'instruction is good only when it proceeds ahead of development. It then awakens and rouses to life those functions which are in a state of maturing, which lie in the zone of proximal development. It is in this way that instruction plays an extremely important role in development'* (Vygotsky 1956).

As Bråten (2002) puts it, the ZPD stands as a metaphor showing that there are still some things which we have not mastered. A child's new capacities can only be developed in the ZPD through collaboration in actual, concrete, situated activities with an adult or more capable peer. With enough assisted practice, the child internalizes the strategies and language for completing this task, which then becomes part of the child's psychology and personal problem-solving repertoire. When this is achieved, the strategy then enters the student's zone of actual development, because she or he is now able to successfully complete the task alone and without help and to apply this knowledge to new situations she may encounter. Of course, there are assignments and tasks teachers give that lie beyond the ZPD, and even with expert assistance the child is incapable of completing the task. Such assignments, no matter what the curriculum might proclaim, are acts of hopelessness that lead to frustration. In fact, such tasks are designated to be at the pupil's frustration level. If one has taught

books that are at many of his or her pupils' *frustration* level, then it also applies that teaching them lies in the teacher's frustration level as well. McCall (2006) observed that Malawian primary classrooms teaching is typified mostly by the teacher telling and the student listening, then the student tells or regurgitates information on a written test and the teacher evaluates. The knowledge here is declarative, decontextualised, and inert. In this way, knowledge is not personally constructed nor applied. Vygotsky's notion of instruction would have teachers doing complex tasks in meaningful contexts with students helping as much as they can. Through repetitions of the task, students take on more and more of the responsibility, with the teacher helping as needed and naming the new strategies employed by the student. Eventually students do the task on their own. This brings us to the second component which is the guided participation.

#### ***2.4.2 Guided participation***

Barbara Rogoff is the proponent of the concept guided participation. Rogoff (2003) emphasizes that, development of individuals is exhibited by their participation in the community, engaging with others in shared endeavors. She believes that involvement and participation of children in shared socio-cultural activities encourage them to play key roles together with their peers and adults in learning and extending the ways of their communities. Putnam (1993) argues that children need to work and play co-operatively with others and that pro-social behaviours in children can be increased through co-operative learning together with other practices. In addition, Webster & Roe (1988) emphasize the idea of promoting children's social development by adults exposing children to different environments to expand their knowledge. They maintain that the social environment in which children live, play and learn helps them to understand the world around them and act on it accordingly. Whereas the concept of guided participation does not focus directly on visual impaired children, the idea seems to apply to them as well because children who are visually impaired are first and foremost children and therefore they belong to the group to which the concept of guided participation is linked. Hence, they too need to be helped by adults, teachers, sighted peers and care givers to become active members of the school community. Jane & Cheryll (2006) found that the VI student they studied enjoyed a high level of popularity in the classroom; and in his teachers' opinions he was a social equal with his classmates. As a result, note taking, in particular, became a co-operative activity, in which a sighted classmate would dictate notes to the VI student, who would in turn print out two copies, one for each of them. When children with visual impairment are involved in co-operative activities, it may be possible for them to rediscover their self-esteem and become full

participants in various social activities together with their sighted colleagues at school, and at the same time acquire the social skills necessary for them to function efficiently in their classrooms.

Within the component of guided participation, there is also an element of the adult giving assistance to the child. Hundeide (2003) says that depending on various factors, a teacher will lend various levels of assistance over various interactions of task completion. The goal of giving assistance in relation to children who are visually impaired is to allow the pupils to do as much as they can on their own, and then to intervene and provide assistance when it is needed so that the task can be successfully completed. Vygotsky stressed that pupils need to engage in challenging tasks that they can successfully complete with appropriate help. Happily, Vygotsky points out that teaching in such a way develops the teacher just as attentive parenting matures the parent. A metaphor that has been used to describe this kind of teaching is *scaffolding* (Bråten 2002, Bos and Vaughn 1998, Mitchell 2008) or what Hundeide (2003) prefer to call *graded support*. The scaffold is the environment the teacher creates the instructional support, and the processes and language that are lent to the pupils in the context of approaching a task and developing the abilities to meet it. This metaphor captures the idea of an adjustable and temporary support that can be removed when no longer necessary. The construction starts from the ground up, on the foundation of what is already known and can be done. In this learning process, Bråten (2002) gives three steps which I will present by referring to children with visual impairment; first step is that the teacher models a new strategy in the context of its use and VI learner watch or listen. As this is done, the teacher will talk through what the strategy is, when the strategy should be used and how to go about using it. At this stage, the teacher engages in the task with the VI child helping out. In relation to children who are totally blind, talking about the strategy will help them to establish a clear picture of the situation and give them an idea of what is expected to be done. The second step is for VI pupils to take over the task of using the strategy with the teacher helping and intervening where needed. Here the VI learner will be able to do much of the task with the graded help from the teacher. Finally, the VI learner can independently use the strategy while the teacher watches. Being able to finish the task successful can boost the VI learners' level of self esteem and motivation. If the VI learner experience difficulty using a strategy in a particular situation, the teacher may have to move back a step by providing necessary help, or taking over the task and asking students to help again, until the child manages to get it right. Graded support therefore seems to be very relevant for children who are visually impaired because they need adult and peer intervention and appropriate support in order to realize their potentials not only in academics but also the social domain. The learning here is directed by a teacher who models



appropriate strategies for meeting particular purposes, guides students in their use of the strategies, and provides a meaningful context for using the strategies.

### **2.4.3 Mediated Learning Experience**

The third aspect in the socio-cultural theory is the focus on mediated learning experience. Feuerstein and Feuerstein (1991) developed a theory that has focus on the interaction between human beings and their environment via a mediator. According to Feuerstein and Feuerstein, human mediation is a conscious attempt of an adult to adjust his strategies and modify the environment in a way that will ensure the learner will benefit from it. Mediation occurs when another person, in this case the teacher, serves as a mediator between a learner and the environment. The mediator or teacher's role is selecting, framing and modifying the stimuli before it gets to the learner, which will help the learner to respond in a competent manner (Feuerstein & Feuerstein 1991). Klein (2001) found that sibling relationship seems to provide a natural setting for practicing and mastering new skills. They note that pre-schoolers use same strategies that mothers use in order to foster learning and mediate between toddlers and their environment. Cole (1996) also cited another case similar to mediation when a mother chimpanzee sat watch a daughter chimpanzee who unsuccessfully cracked a nut, the mother joined to direct and demonstrate on the correct use of the stone to crack the nuts. The daughter understood the lessons perfectly after some demonstration and the mediation.

In the mediation process, direct exposure to the stimuli provides the VI individual with a variety of events and experiences. Klein (2001) also supports mediated learning, and defines mediated learning experience as the process of learning that occurs when another person serves as a mediator between the child or learner and the environment; preparing and reinterpreting the stimuli from the environment so that they become meaningful and relevant for the child. The teacher intentionally plans and gives support for a learner to strengthen his/her capabilities. Kozulin (1995, p. 68) remarked that, '*there is a qualitative gap between learning based on direct exposure to stimuli and learning mediated by another human being.*' In applying mediation in learning, the teacher aims to develop child's performance to a higher level that can reflect a difference in operational levels when aided and unaided. The teacher interposes himself between the learner and the learning material, and makes the learning interventional (Feuerstein & Feuerstein 1991). It can then be deduced that mediated learning is not incidental or accidental but that it is intentional and a consciously planned activity with presupposed expectations or outcomes from the learner. In mediated learning towards children with visual impairments, the teacher plans the VI child's learning material in a way that stimulates the child. The teacher focuses on capturing the VI child's attention on a task thus he/she

also expects child's reciprocity by way of responding to the stimuli. Through planned action, the VI learner then benefits from the planned experiences. This in actuality can prepare the VI learner for more advanced learning. This means that when teachers plan the VI children's learning activities, it should be born in mind that VI learners need guidance, participation, mediation in their learning, interaction and that learning should be situational. Mediation therefore focuses on: expansion of the learner's zone of proximal development, providing the learner with insights into him/herself as a learner, providing the learner with insights into the effectiveness of the learner's present capabilities, processes and strategies, enhancing the transference of learning into new situations which the learner will encounter, increasing the capacity of the learner to scaffold or support and mediate their own learning in future; and thus, is largely about learning how to learn.

#### ***2.4.4 Socialization through Verbal Instructions or dialogue***

The fourth component is socialization between the teacher and all learners through dialog in the classroom. Rye (2007) says that learning is a social event in which language plays an important role. Teachers and learners discuss what they are learning and how they are doing about learning. Such interactive dialogue or instructional conversations between teacher and learner provides language models and tools for guiding one's inner talk about learning. Socialization has been defined by Johnsen (2001) as the mutual understanding of two or more persons towards each other to share and interchange interests; feelings; opinions; or information by using different systems of communication. The VI child may have to rely on verbal description or dialogue in order to capture as much information as possible in the learning process. They may need to concentrate on a lesson without the visual focus available to their sighted peers. According to Hundeide (2003) there are three types of dialogues that can influence the VI child's development. These are *emotional dialogue*, *meaning-creating and expansion dialogue* and *regulative and limit-setting dialogue*. Emotional dialogue emphasizes on the mutual emotional and expression exchange between the teacher and the child. In this case, the teacher tunes himself or herself to the child's level and acknowledges the child with warm positive feelings. The expansion dialogue is more related to the child's surrounding or what the child puts his or attention on. It is important that the teacher give meaning to and explain things further so as to give this child a cultural rich meaning of the event or thing. The regulative dialogue concerns help and supporting the child's efforts to master what is going on in his or her world. The teacher's roles is to advice and counsel the VI child stage by stage and make him or her realize the consequences of his or her actions. It is of special importance that regular teachers try to establish a meaningful dialogue with children who are visually impaired in their classrooms.

Chapman and Stone (1988) advise that class teachers are responsible for preparing suitable classroom work for all pupils and should refrain from using meaningless non verbal communication to visually impaired learners. Instructions and explanations given by the teacher need to be clear and concise. The teacher should read out clearly everything written on the blackboard. When speaking to the children with visual impairment, the teacher should first address them by their names to ensure attention. To make sure that the children understand what is taught, the teacher should ask questions when necessary in order to open a dialogue with the learners.

#### ***2.4.5 Emphasis on Concrete Experience***

The fifth component is on emphasis on concrete experiences. Vygotskian theory shows that learning proceeds from the concrete to the abstract. In Rogoff (2003) views, the children's participation can be facilitated by the use of concrete tools and involvement with cultural institutions. Since visually impaired children cannot learn by imitation through visual experience alone, they need to do it through their other senses also, such as sense of hearing and sense of touch. Appropriate teaching aids should therefore be used to allow them to touch and learn from concrete experience. What they have learnt will thus be clearer and more accurate. Bos and Vaughn (1998) suggest that there may be times when a Visually Impaired child would benefit from using an approach that is more "hands-on" than that followed by his/her peer group. This can be particularly so in Numeracy and Mathematics, when they may need concrete experiences for longer because of its abstract nature. To avoid isolation it would be beneficial if sighted children also occasionally worked in this way. It is the duty of the teacher then to make efforts to concretize all teaching for the benefit of the student thereby mediating the students' learning. In a short summary, the socio-cultural perspective therefore, emphasizes the importance of social interaction of human beings in their development and learning. In this perspective, children with visual impairment can develop good skills in problem solving through the way they are guided in their participation in class activities, with the regular teacher posing as a mediator. The theory also shows good results of teaching through concretization, and socialization or interaction of the learner through verbal instructions or dialogue.

#### **2.5 Aspects which are vital in planning, implementation and assessment of lesson in relation to children with visual impairments as illustrated by the didactic relation theory.**

Teaching is also about creating mutual relationships between the teacher and each individual learner, and it is also about managing relationships between learners in any learning group. The reason for such relationships is that teachers will want to use challenges that each group member's perspective

can provide for other learners. The planning of teaching VI children demands more attention than normal because it encompasses the didactic considerations the teacher needs to make in his/her teaching. Within the didactic consideration, there is a relation between the pupil and the content. This is manifest as studying, and latent as learning and other changes. Secondly, the teacher has a relation to the relationship between the pupil and the content. In other words, the teacher has a relation to studying and at the same time this relation is also to the learning and other changes. That very relation is called *didactic relation* (Klingberg, 1995). It is important to notice that the didactic relation means a relation to another relation. Didactic relation theory relates to the six most important aspects; Initial circumstance of the learner, Frameworks, Goals, Content/material, Working processes and methods and Assessment, which are mutually interdependent and run in a circular continuous process. Change in one aspect will affect the other aspects all together.

### ***2.5.1 Initial circumstance of the learner***

A review of the initial circumstances of learners can show that learners are in very different situations and that this may mean that learners have to work with a range of different approaches that accommodate their own ways of learning to get the optimal results. They have varying needs, demands and goals in relation to teaching and different learners may learn best by using different learning approaches (Klafki, 2000). Questions to ask about the initial circumstances of the VI learner may include: What relevant skills does the VI learner have? Does the VI learner have any special problems or need for resources in relation to the teaching? Both in planning and in the contact with learners it is necessary to consider the above questions. The teacher has to think about these questions both in connection to the group of learners as a whole and in connection with each individual learner both in the planning of the work package and in feedback. It is important to respond to the learner at their own level of expertise (Uljens, 1997). In other words, the teacher has to meet the learner where the learner is. The questions above are used to find this appropriate level to start at.

### ***2.5.2 Frameworks***

Frameworks can influence the didactic considerations of planning, carrying out and evaluating teaching. The term framework is referring to the conditions that govern teaching that emerge from different levels, such as the frameworks produced at the level of the class, the school, or the wider community (Klafki, 2000). When considering frameworks, questions the teacher need to ask include: Is the teacher's day-to-day teaching controlled by a curriculum? Are there any relevant national frameworks? Are there time constraints? What skills does the teacher have that are relevant to have to the practice? Do all learners have access to the learning resources? Frameworks therefore, include

all the conditions connected to the possibilities for and to the limitations to teaching. They are connected to conditions in the classroom, the conditions of collaboration among teachers and the teacher him/herself.

### ***2.5.3 Goals and Objectives***

Klafki (2000) defines goals as the general statements of what the teacher want pupils to learn. The goal is the purpose of the education or teaching. Goals can be found in the mission statement of the school; in governmental policy initiatives, regulations and laws; and in the specifications for different subjects. When thinking about goals teacher can ask: What knowledge, skills and attitudes should the learner possess after the lesson or project? What does the society, the school, the teacher and the learner want to obtain through the day-to-day teaching? The question left open is how these goals will be achieved. Objectives take goal statements to the next level of specificity. They state exactly what students should be able to do, and under what conditions they should learn the material, for instance, in class, on a paper, in an exam, etc. In relation to VI pupils, the teacher here needs to be realistic in the kind of objectives one is setting for the lesson since the objectives are what the teacher uses to determine whether pupils are learning and meeting the goals. The objectives should be achievable by both sighted and visually impaired children otherwise the lesson will be useless to VI learners if they cannot achieve the stated objectives. While each learner will have different knowledge and skills, the teacher must try to assess, what it is individual VI pupil already know or is able to do (Palincsar and Brown, 1985).

### ***2.5.4 Content and material***

The content here refers to the content of the teaching, both the material and the subject matter. Klafki( 2000) says that the content is the “what” aspect of teaching. When deciding on the lesson, the teacher needs to find materials or learning objects that will lead the learner to the objectives. Many literatures have provided guiding question a teacher can ask himself or herself when selecting the materials to be used in the lesson. When thinking about content and material, the teacher can ask what material does the lesson have to contain? Which part is based on practice? Which part is theory based? What can the VI learner do alone? What can the VI learner do in a pair/group? Does the material need instruction from the teacher? .In a study on the kinds of content differentiations that teachers make when teaching individuals with special needs in inclusive set- ups, Adami (2004) discovered that teachers chose particular contents for specific students within the same subject matter according to their learning needs. This kind of adaptation can be explained as stratifying content according to the abilities of individuals. That means all students can learn the same concepts but at

different levels. Such adaptation is important for individuals with visual impairment as they have different operational levels. Visual impaired learners require also adaptations to teaching and learning resources (Chapman and Stone, 1988). The Study conducted by University of Strathclyde in 2005 found out that most VI learners in Malawi were included in the classroom without appropriate adaptable teaching and learning materials to enhance their classroom active participation. This demonstrates that VI learners are doubly disadvantaged due to their disability and shortage of adaptable teaching and learning materials (Law, 2006; University of Strathclyde, 2005). Several findings have revealed that teaching and learning materials in the Malawian regular primary schools are inadequate ( USAID-Malawi, 2003; Blind Aid Africa 2007). Findings of Minto *et al.*, (2005) revealing that 72% of VI students in Malawian regular primary schools did not have spectacles and no single low vision device was in use is worrisome. Inadequate provisions of such appropriate devices deny opportunities for VI pupils to actively participate in their classrooms.

#### ***2.5.5 Working processes and methods***

The working processes are about what the teacher and the learner choose to do during teaching and the methods are the background and arguments for different choices. It includes both general and subject related considerations of a didactic nature. This concept is especially concerned with the relationship between teaching and learning. Kirk, Gallagher & Anastasiow (2003) say that visually impaired children are at a distinct disadvantage because they lack vision, which is the primary means of learning new information. Klafki (2000) says that method planning is concerned with the “how” part of teaching, more precisely with the question: which ways can lead to the fruitful encounter between the children and the content? The teaching methods that a teacher should choose to use in the classes with visual impaired children should therefore be those which focus on using the other remaining senses which are; hearing, touching, and smelling (Uljens, 1997). Some methods that can be used include group discussion method, lecturing method, Question and answer method, pair discussions, projects, demonstrations, role play and many more. It should be pointed out that it is important that the teacher varies these methods because different pupils both sighted and VI children may prefer different methods of teaching and learning (Palincsar, and Brown, 1985). In connection with the working process the teacher has to think about the following issues: Are the methods based on the learner getting *skills* from the subject? (instruction) or Are the methods based on the learners’ *understanding* and use of the subject? (constructivistic). Is the working process based on just-in-time teaching? (unstructured), or is the working process based on just-in-case teaching? (structured) Is the goal for the learner to reproduce certain skills demanded by the topic? It then follows that teachers

need to be flexible to cater for the diversity of students through appropriate teaching programmes, organizations and other adaptations that are necessary (Knight 1999).

### ***2.5.6 Assessment***

It is essential to consider what is to be assessed, why how and by whom. Bos and Vaughn( 1998) say that assessments can vary from a narrow measure of the factual knowledge of participants to a wider measurement of the learners' total development. In connection with assessment you have to think about: What do you want to assess? Do you want to assess the learner in relation to whether he/she reached a particular goal? criterion-based assessment. Do you want to assess the learner in relation to his/her own development in relation to what he/she was able to do before? norm- or progress-based assessment. How do you want to assess? Will the assessment be by multiple choice, essay, group work, oral examination, practical etc? Will there be an element of self-evaluation such as: Dialogue between the teacher and the learner where the learner relates his/her circumstances and learning process to the goal of the course and its content? Will the assessment be an ongoing part of the learning process? In an outcomes-based curriculum used in Malawi, learners' progress is measured against the broad results expected at the end of each learning process, such as general skills, abilities and values. It can be on-going assessment to get feedback from children's learning and teachers' success in selecting appropriate teaching methods, as well as the needs to adjust the pace or style of teaching (Uljens, 1997). In this way, all learners can be evaluated against their own achievements instead of being compared to other learners. Assessment can take place in a flexible manner and time when the learner has acquired new knowledge, a new skill or competency, even new attitudes and values, when the teacher has finished teaching a particular content and in the ordinary classroom situation. In conclusion therefore, this chapter has defined visual impairment, its causes and implication to learning. Finally the chapter has looked at teaching and learning of visually impaired children from a social-cultural perspective and also looked at the didactic theory to illustrate the vital elements in planning, implementing and assessing lessons in relation to children with visual impairments. The next chapter discusses the methodologies that were carried out to conduct this investigation.

## **CHAPTER THREE: Methodology**

This Chapter presents the approaches used to gain answers to the problem under study. This section will describe the research design, data collection methods and instruments, population, sample and sampling procedure, presentation and analysis of data, validity and reliability, ethical considerations, and limitations of the study.

### **3.1 Choice of research design**

As Merriam (1998) states, planning a research project can be compared to planning for a vacation trip. Before starting out you consider what sort of trip most appeals to you, what you like to do, what it might cost, where you want to go, how best to get there, how long to stay and so on. In the same way, there were a lot of things that were considered concerning the method to be used before carrying out this research. When one is set off to investigate something, it means that there has to be an issue or problem that needs to be investigated. It is important that the research has a clear theme for the study and a clear problem to be investigated. This study major theme is on inclusion of VI children in regular classroom, and the problem to be answered is *how do teachers teach children who are visually impaired in ordinary classroom settings?* After identifying the research problem and reviewing the literature, the next thing was considering the research design to be used. Ringdahl (2001) defines a research design as a plan for the investigation. There are two main ways of designing a research; these are by qualitative and quantitative research methods. Qualitative research is defined by Merriam (1998) as an umbrella concept covering several forms of inquiry that help us understand and explain the meaning of social phenomena with as little disruption of the natural setting as possible. Qualitative research is therefore interested in understanding the meaning people have constructed, that is, how they make sense of their world and the experiences they have in the world. On the other hand, quantitative research is interested in quantity, and takes apart a phenomenon to examine component parts, which becomes the variables of the study. The major thing with quantitative research is to generalize the results due to its representativeness of the large sample involved during data collection. Looking at these two methods, I choose to use qualitative method as an appropriate way toward gathering the wanted information to the research problem. A qualitative method was deemed suitable because this study was in search for in-depth knowledge on teacher's teaching practices in ordinary classes. The second reason I choose qualitative method is because the field I went into is not very much structured. The culture of researching is still very young in Malawi especially in the issues concerning special needs education. Hence there is not much knowledge about how teachers teach learners with visual impairment in ordinary classes. With this in mind, and



by looking at the nature of my research question, it was important that a qualitative research, with an aim of getting rich descriptive information be carried.

### **3.2 Study Site**

In Malawi, the study was carried out at Ekwendeni primary school, located in northern region of Malawi, Mzimba district (Appendix B, showing position of Malawi in Africa, and a map of Malawi). The school has a population of 1258 pupils accommodated in 17 classrooms instead of 32 classrooms, since each class has three streams A, B and C, organized by mixing children with different learning abilities in these streams. As a result of the shortage of classrooms, class 3 and 4 start classes at 10 o'clock, so as to occupy the classrooms which classes 1 and 2 have been occupying in the morning. The problem of shortage of classrooms was made worse recently when the school was affected by heavy rains which resulted into demolition of some school blocks and teachers houses. This accelerated the problem of shortage of classroom, leading to some classes learning outside under a tree. At this school, there are currently 46 visual impaired children; 30 boys and 16 girls. Of these, 16 are blind while 30 are low vision. 28 of them uses Braille and 18 uses large prints. There are 26 teachers all together. Of the 26 teachers, two have training in visual impairment, one has training in learning difficulties and one teacher is visually impaired. The school has a resource room, which is used for teaching the class 1 and 2 pupils with visual impairment. These pupils join the ordinary classes when they are in class three.

### **3.3 Study Population.**

Informants for the study were regular teacher of this school. However, not every regular teacher at this school participated in the study. In other to limit the informants, two criterions were used. One, regular teachers teaching mathematics, physical education, home economics and music classes were to be involved, and two; the regular teacher should have children with visual impairments in his or her classroom. The Malawian primary curriculum areas include: English, Chichewa, Mathematics, Social studies, Religious studies, Life skills, Expressive Arts, Agriculture, Science, and Physical Education (Kaambankadzanja, 2005). Mathematics was chosen because of its abstract nature. It was therefore interesting to see how teachers prepare and implement their lessons in consideration to the VI children. Physical education, home economics and music classes, are subjects which involves physical mobility and activeness. However, the situation at this school is that these three subjects are under one umbrella term called expressive art. Therefore I did not gather data from these subjects individually as planned. In other words, data was finally collected from mathematics and expressive

art teachers. Even with the use of two criteria stated above, not every regular teacher participated at this school. The researcher had to pick a sample, bringing in the question of how sampling was done.

### **3.4 Sample and Sampling procedure**

According to Gall et al. (2007) it is only when a target population has been identified that a sampling procedure can be instilled. As stated above, the target population in the study was identified as regular teachers who taught learners with visual impairment, specifically in mathematics and expressive art. There are two types of sampling, probability and non-probability sampling. According to Merriam (1998) probability sampling, of which simple random sampling is the most familiar example, allows the investigator to generalize results of the study from the sample to the population from which it was drawn. Since generalization in a statistical sense is not a goal of qualitative research like this one, probabilistic sampling was not seen as necessary or justifiable in this study. Thus non probability sampling was the method that was chosen. Within this method, purposive or purposeful sampling technique (Patton 1990) was used. A typical sample of teachers were purposively chosen after the researcher had observed each teacher's lesson once. Gall et al. (2003) supports purposive sampling, saying that it enables the selection of cases that are likely to be information rich, and this was proved true in this study since almost all the teacher that were chosen provided rich and interesting information on how they experience their teaching of visual impaired children in regular classrooms, how they plan their lessons, how they teach and assess children in their classrooms. In total twelve teachers, comprising of 7 female and 5 male participated in the study. Of the 12 teachers, 10 were regular teachers while 2 were VI specialist teachers. The reason why these two specialist teachers were also chosen despite the fact that this study was more interested in regular teachers was because these two were also involved in teaching the VI learners at a full basis, and therefore the researcher could, at one point or the other, use their teaching as a point of contrasting reference to the way regular teachers did. One of the VI specialist teacher taught VI learners in class 1 and 2, while the other one was responsible for all VI learners in ordinary classes. All in all, the process of identifying informants was not as challenging as I thought it will be. Teachers were very cooperative and willing to participate.

### **3.5 Data Collection Methods**

Halvorsen (2003) defines the method as a systematic way of finding out the reality. Originally the word method means "the way to the goal or destination", and according to Kvale (2001) if one is to find this way and show it to others, one must first of all know what this goal, or destination is. This

is supported by Halvorsen (2003) who says that choosing a method is a fundamental thing that the researcher has to deeply consider before going out to collect data. In this paper the destination is finding out how teachers teach children with visual impairment in regular classroom. To reach this goal, data was collected through qualitative observation method complemented by qualitative research interviews. However, the major method for collecting data was through observation. Robson (1993) defines observation as a systematic way of watching, recording, describing, interpreting and analyzing what people do, behave and say. Observation method was chosen because observations have the power to enlighten and give a clearer picture to the investigator better than what people can say or describe. In other words, observations provided a way of capturing first hand experiences of the actual classroom situations during the lesson delivery. It was prudent to observe how teachers use their teaching strategies and the learning environment through my real presence as teaching took place instead before being told about it. By looking at the patterns of classroom interaction through observation, what the talk 'enables' and what the talk 'disables' became evident. Observations of classroom talk and classroom activities capture what is set up to be of primary importance in the lessons by displaying: what teachers and students talk about, what topics are the focus of the interaction, how lessons begin, what students *hear* as the focal point and the purpose of the lesson, how lessons progress, the activities that are involved, whether the topic is maintained, and how lessons conclude, whether students are reconnected to learning goals, plus many more things. Observation method was also chosen because as an outsider, I was sure that I can notice things that have become routine to the teachers themselves, things that may lead to understanding of the context.

I also used qualitative research interviews (Kvale 2001, Thagaard 2003) to collect data that will enable to answer the research question of this study. Mason (2002) says that interviews are viewed as an exchange of dialogue that involves one to one interaction aiming at construction and reconstruction of knowledge. A follow up interview immediately after the observation was used to obtain clarifications on some of the adaptations made by the teachers before they could forget what they did during the teaching. Compared to questionnaires, the interview method enables to recognize the behavioral characteristics of informants involved in the study such as their body language, for instance the way they stress a point with some gestures or with accompaniment of facial expression. Similarly, interviews permitted a face to face interaction with the informants in their natural setting in the school that suited the desired situation (Gall et al, 2003). It was capable of eliciting data in its great depth since it enabled probing more deeply using open ended questions so as to obtain more information and also make follow up to the respondent's answers to obtain more information (Gall et

al. 2003). Qualitative research interviews are like conversations, but as explained in Kvale (1996, p. 6), these interviews are not conversations between equal partners. The conversations are controlled by the researcher, who is the person with a purpose and goal with the interview/ conversation. The researcher introduces the topic for the conversation and guides the conversation (Kvale 1996). Ringdahl (2001) also supports conversations by saying that they are the basis for getting knowledge on how individual persons experience their situations. Qualitative interviewing enabled the participants to describe their experiences in their own terms/words and give their own interpretations of the situation. Apart from conducting formal interviews with these teachers, I also had informal conversations with the head teacher and children with visual impairment during my intermissions with them in the School compound, with an aim to expanding my understanding of the situation of VI pupils at this school. I also had informal conversations with a number of regular teachers who were teaching classes which did not have VI children. The information collected through the informal interviews will not be formally used in this study.

### ***3.5.1 Data collection instruments***

An observation guide (Appendix C) and interview guide (Appendix D) which were used as instruments during collection of data were prepared beforehand. The researcher spent a lot of time in preparing these guides so that all the relevant issues and questions were included. In order to prepare these guides the researcher read extensively books and articles on teaching and learning of children with visual impairments that are taught in ordinary schools in different parts of the world. The other reason why I read extensively was to familiarize myself in the issues concerning visual impairments so that I can be fully equipped with necessary and relevant information before I went out into the field to collect data. The guiding points in the observation guide and the questions that were formed in the interview guide were greatly inspired by the sociocultural learning theories and also the didactic relation theory.

In the observation guide, the points noted down were to be used as point of reference during and after classroom lesson observations. The guide started with noting the class environment such as number of learners and number of VI learners, size of the class, furniture and sitting arrangement, light, ventilation and classroom displays. This was filled before the lesson has begun. The next aspects were to observe the lesson introduction; comprehensible input in terms of language of instruction, strategies the teacher use, interaction of VI pupils with the teacher and with the rest of the class, tasks to be performed and finally lesson conclusion. It should be pointed out that the researcher preferred to note down everything that was going on in the classroom during the time the teacher was teaching,

rather than just ticking on the observation guide form. The researcher, soon after the class was over, wrote a summary of the observation basing on the points that have been listed about in the guide. In such a way, the researcher made ensured that all the important aspects which were displayed in the teaching and learning process were not left out and at the same time, clearly described and explained. The questions in the interview guide started with asking for the background information of the respondents, especially on their level of education and the years in teaching service. This information was aimed at putting the teacher at ease while at the same time assessing how long or how much experience they have in teaching classes with VI learners. This was then followed by questions on factors teachers consider when preparing for a lesson, teaching methods teachers use in and why, availability and use of teaching and learning resources especially in relation to children with visual impairments, involvement and participation of learners in teaching and learning process, assessment of the lessons, challenges teachers face when teaching VI learners in the ordinary classes, and the way they overcome such challenges. A semi structured interview guide was used to maximize the opportunity of getting rich information through the use of open-ended questions. Kvale (2001) says that using a semi structured interview guide gives a researcher a suggestion to the questions that need to be answered in the interviews and at the same time, it gives open room for changes, both in terms of the order of questions and form of questions in such a way that the interview flow according to the answers the researcher is getting and the story being told.

### **3.6 Data collection process**

The data collection process started with the teachers being observed first and later on interviewed. This was a deliberate move by the researcher in order to capture the real situations in the classrooms first which later could be compared and supplemented by what the teachers say concerning their teaching practices. Since primary school education is divided into lower and upper section, I decided to observe classes 1&2 from the lower section which had 19 VI pupils, and from the upper section classes 5A with 5VI pupils, 5B with 2 VI pupils, 6A with 5 VI pupils and class 6B which had 3 VI pupils were observed. These classes were chosen because they had more than one child with visual impairment and therefore, the more the number of VI learners in a class, the more it would be interesting to see how the teacher handle them. Each of the 12 teachers was observed two times or more, with each of the observation lasting for 40 minutes per lesson. Thereafter the researcher immediately had a follow up interview with each teacher to reflect on and assess their own teachings. In order to ensure a smooth flow of the interview, the researcher employed one research assistant, a student teacher by profession. His role was to take notes while the researcher was interviewing, and

also to do the class observations. After each observation, we sat down to compare our observation notes and discussed different issues or aspects observed. This I considered very important because it enabled me, as a researcher to reflect deeply and look with a critical eye on the findings. Another major issue in relation to the observation process was to consider the extent to which I as an observer was to be overt or covered in order to avoid disrupting the learning and teaching process in the class, while at the same time capturing as much information as possible. After trying several positions during the pilot study, i.e. sitting or standing at the back of the class, in the front of the class, middle or sides, I decided that the better way was to be seated at the back of the class, because this position made children to sometimes forget that there was an intruder in the class, and therefore showed their everyday behavior. To avoid interference with the lessons as I observed the teachers and the learners, a non-participant observation method was employed. Being a non-participant observer, the researcher therefore assumed a passive role, enhancing unobtrusiveness as lessons were largely observed in a natural classroom environment. However, what I discovered as the observations were carried out was the fact that as much as I tried to be as detached as possible so as not to contaminate the study, my presence had still some effect on both the teacher and the learners' behavior. This problem will be further highlighted in the limitation of the study.

In the interview situation, as a researcher I tried very hard to implement a phenomenological approach, trying as much as possible to give time to the participants for reflection, association and thoughts around the theme on hand. Listening to the interviewee was one of the things I had to discipline myself into, and not let the questions control the whole interview process. My understanding of what Kvale(2001) says is that in a phenomenological approach, the researcher should be able to listen without judgment, and let the interviewee describe his or her experiences without being disturbed with interview questions. This is what I strived for during the interview process, let my informants think and talk, and I as a researcher listened. Another important thing was creating a relaxed atmosphere during the interview process. In order to achieve this, I made sure that the first introductory questions were simple and relaxing. I noted that most teachers were at first afraid of me because they thought that I have been sent by the ministry headquarters to find their faults. This was revealed by most teachers themselves after they have relaxed. I therefore used the first minutes for warming up by introduce myself and clarify why I was doing the research at their school. This research study was also part of a learning experience for me as researcher. The interviews certainly got better towards the end of the fieldwork, when I, the researcher, was becoming more experienced and confident in the field. I felt that I, as a researcher, became better at

interviewing and getting information the longer I had stayed in the field. In an interview setting I got better and better at asking questions in ways that encouraged the participants to tell and talk. But I did follow the same interview guide throughout the study, as I thought it would be appropriate for all the interviews to cover the same topics. However it must be made clear that the researcher did not follow the questions in the same order in each interview. A tape recorder was used to record the interviews with the interviewees consent.

### ***2.6.1 The Pilot Study/Entry to the Main Study***

Gall et al, (2003), argued that it is always important to conduct a pilot study before embarking on the main study. Yin (2003) noted that the purpose of a pilot study is to refine data collection plans with respect to the content and procedure to be followed. A pilot study was carried out at a primary school in Chikwawa district, a different district from Mzimba where the real study took place. The school had the same characteristics as those outlined for my final participants, but I did not choose it due to high travelling expenses I would have encountered plus accommodation problem compared to Ekwendeni in Mzimba district. Pilot-study helped me to identify threatening questions or aspects that could otherwise affect the credibility of my research findings and susceptibility to bias. The pilot study was done by setting a tentative semi-structured interview with a number of regular teachers. I did not pre-test my instruments while still in Norway because the setting did not suit the contextual area of study intended in Malawi. This therefore necessitated pre-testing the instruments while in Malawi. I also hoped that by doing that, it would enhance my interview skills during the main study in the field. The first stage in the pilot study involved getting acquaintance with informants where pretesting was done. This was done, first by introducing myself, why I was there, use of the information to be provided, and the research topic to participants to prepare themselves ready for the interviews. The second stage was the interview questions. This was aimed at evaluating the relevance of the questions and effectiveness of the instruments ready to be applied in the main study. This enabled me to rearrange my questions, remove those which were vague and rephrase or clarify those which were not clear, and also test the tape recorder, where best to place it so that it captures the voices clearly. The third stage was getting feedback through asking pilot-study participant to assess the questions I have asked. For example, if they thought the questions were unclear, or if they have something which need to be added or asked. All these helped to strengthen the validity of the interview. In summary, I realized that conducting a pilot study is the best thing which each and every researcher needs to do before carrying out the real interview. The pilot study enabled me to test my research instruments and also to test and prepare myself into the role of an interviewer.

### **3.7 Organization of and Analysis of data**

Interpretational analysis was used to organize and present the raw data collected. Yin (1994); Gall, Gall et al (2007) clarify that interpretational analysis is the process of examining and studying data closely in order to find constructs, themes and patterns that can be used to describe and explain the phenomenon being studied. The first process I took in this analysis was to compile all the data. Hand written notes from the observations done in the field and transcribed notes from the interviews were typed in segments. A segment, also known as a “meaning unit” or “analysis unit” is described by Gall et al (2007) as a section of the text that contains one item of information and that is comprehensible even if read outside the context in which it is embedded. The next step I took was the development of categories and coding them. A category is a construct that refers to a certain type of phenomenon mentioned in the data base. The major question that I faced at this point was how do I construct categories for coding the segments from my data base that I had? To do this, I studied by data closely and carefully in order to identify significant phenomena, and then determine which phenomena share sufficient similarities that they can be considered instances of the same construct. This construct became a category in my category system. Since the construction of the data collection instruments were in the first place inspired by the didactic theory and the aspects of the sociocultural theory, the categories formed were also influenced by these theories. The categories include; introducing teacher participants, factors teachers consider when preparing and planning for the lessons, factors teachers consider when delivering the lesson, factors teachers consider when assessing their classroom lessons, lesson implementation, VI learners assessment, challenges teachers meet and their recommendations. These categories aimed at highlighting specific aspects of the data for easier interpretation. Although the selected teachers, such as teachers A, B and C, have been treated as cases, their findings have been organized and presented according to themes and sub-themes identified for analysis. Their actions captured in class-observations and their responses from interviews have been contrasted within the themes and sub-themes instead of treating each case individually. Conclusion was then drawn after accomplishing all those initial steps.

### **3.8 Ensuring research quality: Validity, reliability and generalization of the study**

Concepts of validity, reliability and generalization are very important in research, says Kvale (2001). Validity concerns relevance of the data to the research problem. It ensures that the study measures what it intended to measure. Merriam (1998) says that one of the biggest challenges with qualitative interviews as research methods is the validity of the knowledge obtained for the social world in



which it is found. In trying to secure validity of my research, I took my time to prepare an interview guide in order to have questions that will fetch out the relevant information to answer the research questions. A pilot study was also carried out at a school with teachers who held similar characteristics with my informants. Since much of the information I gathered was description by teachers of their experiences in planning and teaching inclusive classroom, there was need to look at how to maximize the validity of these descriptive information. Maxwell (1992) described descriptive validity as the factual accuracy of account as reported by the qualitative researcher. Silverman (2004) enlightened that since description is the foundation upon which qualitative research is built, the researcher should try and capture as accurate as possible what he or she judges to be important. In order to avoid mishearing, inaccurate transcription and mis-remembering words and statements made by the informant, the interviews were tape recorded and later on transcribed, noting down the dialogue word by word. Field notes were taken by both the researcher and research assistant in addition to the tape recordings to ensure accuracy of the data. The non-verbal behaviors displayed by the children and their teachers were also captured in the study through class observations which were carried out several times in different classes by the researcher and the research assistant. To ensure that the participant gave the information I was asking for, the researcher was very careful with the way she met, and behaved in the presence of the participants. Meeting participants with respect, and letting them talk without interrupting, listening to them and giving responses showed that I was following and valuing what they were saying, after all it was the respondents' views and experiences the researcher was interested in finding out. Merriam (1998) says that internal validity is also connected to interpretation. This could be the interpretation of the interviewee of the question asked by the researcher, or it could be the researcher's interpretation of the respondent's answer. To ensure validity I made sure that questions and statements were clear and easy to understand, and avoided ambiguous words and formulations. Methodological triangulation, which according Yin (2003) refer to the use of several methods, in this case using interviews and observations was one way of strengthening the validity and reliability of this study. I also had to increase the number of the observations per informant to have a wider range of data as well as to see if the findings would corroborate across the variants (Gall et al. 2007). With the rich information gathered from the informants the researcher could have a better understanding of the phenomenon. Each teacher was observed several times in order to capture aspects which could have been overlooked earlier and also to correct any misunderstandings which would affect the quality of the research findings. Kvale (1996) says that to ensure the validity of the subjects responds, the researcher can ask follow-up, -and clarifying questions, or repeat the answer and say 'is that what you are saying?'

Reliability refers to the extent to which other researchers would arrive at similar findings if they studied the same case, using exactly the same procedures used in the previous study. Kvale (2001) says that data should be gathered in a way that it becomes trustworthy or reliable. The interview guide was translated from English to local language, Chichewa, and at the same time, the interviews were carried out in the language chosen by the interviewees, for example in Chichewa language, tumbuka language and English language. This enabled participants to fully express their views better than they would have if the interviews had been conducted in English only. However a challenge that I encountered in translating the interview guide was to ensure that the translated version of the questions maintains the same meaning as it would have been if asked in English. In other words, have the questions same meaning as they could have had if asked in English? In asking the questions, did the informant understand the questions right? However, as someone born and grown in Malawi, using Chichewa and tumbuka languages was not a problem at all. With the help of pilot study, the few language mistakes were collected. In addition, 11 of the 12 teachers I interviewed preferred to be interviewed in English. In all interview scenarios, I employed a triangulation of the questions. In other words, the same question was asked in different ways where necessary, just to make sure that the participant has understood what I was asking about.

Generalizability, or what Merriam (1998) prefer to call external validity is concerned with the extent to which the findings of one study can be applied to other situations. That is, how generalizable are the results of a research study? Schoefield (1990) talks of three different goals of generalization one can have in a study, and these are; *what it is*, *what can be* and *what could be*. What it is looks at the typical, the general and normal situation. What can be looks at generalization not as it is, but as what it can be. In what could be looks at finding the situations that are looked at as ideal. My goal in this study was not to look at what can be or what could be, but to look at what it is, in other words, to look at how the teachers are planning and teaching in the inclusive classrooms. Merriam (1998) talks of four types of generalization which are; working hypotheses, concrete universals, naturalistic generalization and the user or reader generalization, which I will not go into details for each of these generalizations. The type which is more relevant to this research study is that of the reader or user generalization. User or reader generalization involves leaving the extent to which a study's findings apply to other situations up to the people in those situations. This is called by Firestone (1993) as *case-to-case* transfer. In relation to this paper, it will be upon the readers to decide how they can apply the findings of this study in different contexts where children with visual impairment are involved in class activities together with their sighted counter parts.

### 3.8.1 Ethical Considerations

Considering the fact that I was dealing with human subjects in my study, I was obliged to respect their rights, dignity, privacy as well as other sensitive issues. Kvale (2001) says that there are three ethical rules that need to be followed in research involving human beings. These are informants consent, confidentiality and consequences. Informant consent means that the informants are informed of the aims and goal of the research, and at the same time of the advantages and disadvantages if any, of taking part in the research study. In other words, the participation in the study should be based on willingness to take part and should know that they can decide to pull out at any moment. Confidentiality means that the researcher does not publicize the raw information gathered; neither publicize the identity of the informant. One can use pseudo names instead. Consequences here mean that there should be a balance between what the informant give and get in the study. There have been incidents where some researcher have distorted or exaggerated the information given to an extent that the informants fail to identify as having said something like that. In relation to this, Thagaard (2003) says that it is important that the information presented in the research paper should reflect that the researcher understood the informants. To ensure this, I have for several times read my field notes and listened to the recorded interviews in order to have a clear understanding of what the informants said. In order to conform to acceptable ethical standards I cleared *'official channels by formally requesting permission'* (Bell 2003, p. 45). Measures were made in this study to make sure the project was ethical. There are a number of ethical issues that I considered during the planning, implementation as well as writing process of this research study. The initial steps in data collection entailed seeking permission. Permission was granted without any problems since I had an introduction letter of whom I was and why I was doing the research (Appendix E). The process was a top-down approach as I began with the highest office in the Education System down to the participants. Ethical clearance was sought and obtained from the Regional Educational Office(REO) in Mzuzu as shown in the stamp in the appendix 5, from the Head of Station at Ekwendeni mission, the head teacher of Ekwendeni primary school and finally from the teachers who participated in this study. Participation in this study was voluntary, and the informants were free to withdraw at any time. Letter of informed consent were issued to persons who were participating in the interviews to sign to confirm their willingness to participate in the study Clear explanation on what their rights are in interview situation was offered, for example: That it is voluntary to participate, that they can omit to answer any question if they don't want to or feel that the question is embarrassing or too personal etc. Participants were assured to be kept anonymous. The people whose pictures I have used have all consented to this. Interviews were tape recorded when the informants agreed to this.

### **3.9 Limitations**

The study was carried out in two months time from February to March, 2009. Although the duration was not that long, I can happily say that the researcher worked hard to collect relevant and enough information that covered all the aspects that the research went out to investigate.

The second challenge is a validity problem which came as a result of using two data collection techniques, that of observation and interviews. It was discovered that in some aspects the data collected from observations did not match to what the teachers explained during the interviews. The question now is what does a researcher do when faced with such situations where the data collected using two means does not match? Huberman and Miles (2002) say that there is no clear straight answer to such a situation. They further say that such issues must be addressed by the researcher. In the example presented above, the researcher corrected the problem by using detailed question on the issue, which resulted into a much clear balanced answer, suiting the observed actions and the information supplied during the interviews.

The third challenge was brought by the issue of using observation as a research method in this study. It was felt that the presence of the researchers in the classroom brought some changes in the way the teachers and the learners behaved during the observed lessons. This is in line with what Merriam (1998) says in her book that participants who know that they are being observed will tend to behave in a socially acceptable ways and present themselves in a favorable manner. In relation to my experience of class observations, I felt that most teachers exaggerated the way they were treating children with visual impairments in their classrooms just because they knew that the researchers was there to find out how the teachers taught and interacted with these children in their lesson delivery. These acts put the researcher in a hard situation, presenting a problem of what and how to separate exaggerated actions from the normal everyday actions. The last challenge was that during my data collection period, the school was affected by heavy rainfall, which led to distraction of some of the school buildings and teachers houses. As a result classes were a bit disorganized, since some classes had to be combined due to shortage of classrooms.

In a summary, this chapter has looked at the methodology used in order to collect data that gives answers to the problem which this study was investigating. The next chapter will present the information that was collected in the field.

## CHAPTER FOUR: PRESENTATION OF RESULT

### *4.1 Introduction*

In chapter 3 the methodology used in gathering the data for this research was discussed. Chapter 4 will present the findings of the research which took place in Malawi between February and March 2009. The overall research question was: *How do regular teachers teach children who are visually impaired in ordinary classrooms?* In order to address the overall research question, there were three sub-questions that were posed and these are: Which factors does a teacher take into consideration in preparation, implementation and assessment of lessons in order to encourage and facilitate children with visual impairment in the learning activities? What are the challenges faced by teachers in their planning and teaching of children with visual impairment in different classroom activities? What are the teachers' recommendations to effectively deal with these challenges? Interpretational analysis has been used to analyze data collected. In interpretational analysis as explained in chapter 3, categories or themes that are used to describe and explain the phenomenon being studied were constructed aiming at highlighting specific aspects of the data for easier interpretation. The construction of these categories as already said, was derived from the data collected which was inspired to a greater extent by the didactic theory and aspects of the sociocultural theory. The major categories presented include; introducing teacher participants, factors teachers consider when preparing and planning for the lessons, factors teachers consider when delivering the lesson, factors teachers consider when assessing their classroom lessons, lesson implementation, VI learners assessment, challenges teachers meet and their recommendations. Much of the information was gathered through the classroom observations. Selected excerpts from the follow-up interviews will be used to give a clear and detailed presentation of results. It should be made clear well in advance that although quite a number of negative aspects were observed in the teachers teaching practices, the aim of this paper is not to dwell on the negative aspect, but rather focus on how these teachers, despite the many unfavourable conditions and factors working against them, made an effort to work towards increasing VI learners participation, fellowship, democracy and benefit in the activities in their ordinary classes.

### **4.2 Introducing the participant teachers and the context in which the study was carried out.**

#### *4.2.1 Teachers level of education and years in service*

12 teachers participated in this study. The teaching experience of these 12 teachers was spread from a minimum of 9 years to a maximum of 19 years. However, when asked how long they have been teaching children with visual impairment in ordinary classes, their answers varied from 3 years to 15

years. 4 teachers were holders of the Junior Certificate Examination (JCE) (is obtained after 2 years of secondary/high school) and 8 teachers had the Malawi Certificate of Education (MCE), obtained after four years of high school. On top of that all 12 teachers have completed a two-year Teachers Certificate course. This shows that the teachers who participated were qualified trained teachers, equipped with experiences of teaching both sighted children, and visually impaired children in ordinary classes.

#### ***4.2.2 Training received by teachers in relation to teaching children who are visually impaired.***

In relation to their training they had in the area of teaching children with visual impairments, responses show that 10 regular teachers have not received any training concerning how to teach or handle children with visual impairment nor on children who require extra help in classrooms. The kind of curriculum training they have received was a general format for “normal” children who did not have any challenge, and whose children who did not require any extra help from the teacher. 8 regular teachers said they have attended one to two workshops related to the specific needs of learners with visual impairments while 2 regular teachers said that they have not been involved or attended any course or workshop concerning how to teach or handle children with visual impairment. These two teachers said that the only seminars they have attended were when the new curriculum was being introduced 2 years ago. These seminars had nothing to do with how to teach VI children. It was also found out that at this school they have divided the teaching of VI children into two. The first part is having class 1&2 VI children learn in their own class as a way of preparing them for integration in the ordinary classes, and the second part is integrating VI learners from class 3 to 8 in ordinary classrooms. Classes 1 and 2, had a total of 19 VI pupils. At the time this research was carried out, there were two children who have just joined the school. One of these, a class 5 girl of 15 years, had just lost her sight due to a disease called measles; while the other one was a class 6 girl aged 16 who had come back to school after she was sent home due to being pregnant.

#### ***4.2.3 Organization of the classrooms***

From my observations, the physical layouts of the learning environment were almost similar in all the classrooms. Classrooms were small in relation to the number of pupils each class accommodated. Teachers had limited space in their classrooms, and class furniture in terms of chairs and tables, or desks were not enough for learners and in some classes there were none at all. Where available, the desks were arranged in a linear order to save space for free movement of pupils (see picture 1). However, overcrowding of the classrooms limited freedom of movement not only to the pupils, but

also to the teachers, as a result pupils sat fixed at one place throughout the lessons and the teachers had difficulties moving around the class. Pupils' behavior and noise in class became a problem to control because the teacher could not reach for every child. Most teachers ended up standing in front of the class, teaching and calling pupils to bring their books to the front to reduce movement amongst the congested pupils. Some classes were conducted outside under a tree. In this class, its organization was a bit different. In terms of space outside, there was enough space. There was freedom of movement in these classrooms by both the teachers and pupils. Children could be seen changing sitting positions as they progressed from one working activity to another. The problem however came when there was strong sun heat or rainfall, and then children squeezed together, everyone wanting to get the shade provided by the tree. There were no chairs and desks; instead the learners used stones to sit on (see picture 2). It was observed that this gave a challenge to VI children who had bulky books and needed desks, in order to write quickly and effectively. Children attention was also disturbed due to noise from passing by people, and bicycles

#### 4.2.4 Number of children per class.

Table 1 below shows number of VI learners and total number of pupils in classes 1&2, 5A &5B and 6A &6B where observations were done.

Table 1. Class size

Class	Number of VI learners	Total number of pupils in class
1&2	19	19
5A	5	92
5B	2	78
6A	5	102
6B	3	96

From table 1 above, class 1&2 has the largest number of VI learners because VI learners for these two classes are combined. The specialist teacher said that of these 19 children, 8 learners belong to class one while 11 are in class two. All 10 regular teachers and 2 specialist teachers agreed that the total number of learners in each class was too big for the teachers to meet the learning needs of individual pupils and especially those with visual impairment.

#### 4.2.5 Sitting arrangement

From my observation, the arrangement of tables and chairs were in rows, with each pupil facing the teacher and the chalkboard in front. Boys and girls were mixed in the sitting arrangement. In many

classes, the writing space was also very limited for the pupils, as they were often seen disturbing each other during writing. The pupils ended up fighting for the few desks because it was not so comfortable for the pupils to spend the whole lesson while standing or sitting on the cold floor. However teachers explained that children who are visually impaired are given priority to sit on the few desks first, as was seen during my observations. 6 regular teachers said that they seated the pupils in this way so that they could make eye contact with every student and reach each one with ease. 2 regular teachers said that it is due to lack of space in the classes, otherwise they would have organized their classrooms in a different way. The remaining 2 regular teachers said that was the way they found the classes arranged when they came to this school, and that is the traditional way how pupils sit in many schools.

#### ***4.2.6 Sitting position of VI pupils in class***

All the 10 regular teachers mentioned about considering the sitting position of children with visual impairment in their classrooms. They all expressed the view that children with visual impairment are seated in front row or front desks, and those who are partially sighted are placed near the window for more light since the classes do not have electricity. One teacher commented that:

*“These children have problems in seeing, and for those who are blind do not see at all. These children therefore rely on learning by hearing and touching. By making them sit in the front row it enables them to hear me more clearly and I can easily render my help to them individually. I have over 90 pupils in my class, and so to put a child who cannot see at the back of the class can be taken as being inconsiderate”* (Interview 4.03.09)

Another teacher said that she makes sure that VI children are placed next to a sighted, clever and fast learner so that VI children can be assisted. She further said that it was more time consuming for a teacher to do everything for the VI learner, therefore placing this child next to a fast learner has proved to be of great help to the VI children. The sighted pupil is expected to dictate notes to the VI learner and call spellings too. In addition, the sighted learners help the VI child when moving about in the classroom. However, it was observed that in one class, VI learners were placed together on one desk unlike mixing them with sighted peers.

#### ***4.2.7 Classroom displays***

The researcher also observed the kind of displays which were in the classroom walls. Most classes were decorated with nice drawings and diagrams prepared by both the teachers and the pupils, maps,



illustrations, charts, and other things. However, none of these displays were in Braille and none of the children's work displayed was from a VI child. In a follow up interview teachers said that it was impossible for them to put brailled displays because teachers lacked resources and skills to do so. On the other hand, two teachers said that they think displays cannot help blind children because these children do not see.

In a summary therefore, these results show that the learning environment at this school is not well enough to suit the needs of both sighted and visually impaired children. The sitting arrangement, whereby all learners sit in rows all facing the teacher in front of the class, do not allow VI pupils to have contact and communicate freely with sighted peers in the same class. Classrooms were observed to be small in relation to high numbers of learners that each class accommodated; as a result there was not enough space for VI pupils to walk around the class freely and safely. Furniture such as desks and chairs were not enough, and in terms of classroom displays, there were displays only in prints and not in braille. Teachers however, ensured that VI pupils were positioned in front rows of the class in order to enable them to have easy access to the teacher and the concrete materials that the teachers used as teaching aids and illustrations in their lesson delivery.

### **4.3 Which factors do teachers consider when preparing the lesson in relation to children with visual impairments?**

#### ***4.3.1 A visually impaired child is first and foremost a person***

From the interviews conducted, one major thing that came up from all the 12 teachers was the fact that teachers considered a child with visual impairment as first and foremost a person or human being and as a child just as any other children. An interesting exempt came from one teacher who said;

*“I always try to remind myself that this child is first and foremost just a child. A child who will have a personality, fears, and strengths, just like every other child I have ever taught. A child who may get in trouble just as often as the others and perhaps even more at times, because of frustration or lack of visual stimulation or even for a reason I can't put my finger on. A child who might be exceptionally well-behaved. In either case, or somewhere in between, this child is still just a child. Blind? Yes. But still, just a little kid who wants his teacher to like him or her” (interview, 24.02.09)*

#### ***4.3.2 Assessing learning needs of the VI learners***

Teachers expressed that they also considered what learning needs each child in the classroom has, especially in relation to those with visual impairment. Teachers stressed the point that the VI learners

differ in their learning need because there are those who have low vision and use large print. These children learn more or less like the sighted children apart from the fact that the teachers have to make sure that everything is written in large clear-sized letters. And then there are those who are totally blind and use Braille as a means of written communication. Such children rely on learning by hearing and by touching. Teachers said that although the VI children fall in either the low vision side or the blind side, each one of them has also individual needs, and these are the needs which teachers assess every time they are preparing for the lesson. Of the 10 regular teachers, 9 said they assess individual VI learner's needs although it is difficult to encompass over 90 children's needs in one lesson plan. One teacher commented;

*“When I am planning and preparing for a lesson, I try to remember that I am planning for children, each one with different needs that need to be acknowledged and handled individually. Other children will need more help in different areas, in this case like children with visual impairments will need extra help in understanding information that is presented visually, and also in terms of abstract thing since they cannot see or have problems seeing.....”(Interview,24.02.09)*

One teacher however said that she does not assess VI learner's needs because she lacks time to do so.

#### **4.3.3 Preparing a lesson plan.**

Teachers also mentioned that the other important thing is to prepare a lesson plan. They expressed that lesson planning is done systematically starting from lesson introduction, lesson development and lesson conclusion. Most of the teachers complained they lack time to plan their lessons properly, especially in relation to VI children, considering the fact that one teacher may be responsible to teach around 5 subjects alone per day. Teachers expressed that they prepare one lesson plan for each lesson that is to be delivered. Teachers were then asked if they have ever considered making individual plans for children with visual impairment and the answer was no. A teacher expressed her surprise when I ask her on individual lesson plans, saying:

*“What!!!..... (laughing in surprise). I don't think that can be possible. We are 2 teachers in class 5A, which has 92 learners, of which 5 are visually impaired. I and my colleague share the 8 subjects which include English, Chichewa, Mathematics, Social studies, Life skills, Expressive art, Science and Agriculture. I struggle for time to prepare one lesson plan per subject, each day. To think of individual plans, where will I get the time from?”(4.03.09)*

In a brief summary therefore, the findings indicate that among the factors which regular teachers take into consideration when preparing for a lesson to be taught in a class with children who are visually impaired include looking at VI learners as persons with needs just as any other children in the class. The other factor was to assess the learning needs of the VI learners bearing in mind that every VI child has individual needs. The third factor is in relation to making a lesson plan, saying that it is important to plan a lesson systematically and also think of time for preparation as a crucial factor.

#### **4.4 Which factors do teachers consider when delivering the lesson in relation to children with visual impairments?**

The questions used as headings below are derived from the direct questions captured from teachers' expressions during the interviews.

##### ***4.4.1 "Talking to my pupils: Do they hear and understand me?"***

Teachers said they are always careful when teaching children who are visually impaired in relation to how the teacher say things. All the teachers agreed that children with visual impairment need more explanation for certain concepts because, as put by one teacher; *"they have less capacity to pick up information incidentally than a sighted child does, as a result non-verbal communication may be lost on a visually impaired pupil"*. Another teacher pointed out that it is important to remember that it is often impossible to demonstrate a skill to a blind or VI pupil because they cannot see or have serious problems seeing things. Therefore spoken communication and instructions are of particular importance. One teacher said:

*"I try to be aware of my language and avoid ambiguous comments such as 'I'm putting this on here' Instead I try to say what I am putting where, so the pupils who are visually impaired understand too. I have learned to "tell" pictures, or get the sighted pupils to help me. I now say more as I point to objects. When I hold up a picture or make a gesture or write words on the board, my VI children will sit waiting until I take the time to say it"* (Interview, 24.02.09).

The use of pupils names in the class was confirmed in the class observations the researcher carried out. All teachers called out pupils by names, not just those with visual problems, but every child in the class, instead of just pointing at them. All the 10 teachers expressed also that it is important to make sure that all instructions, directions, descriptions etc. are clear, concise and audible. According to the specialist teacher, *"not providing the information in time leaves the VI pupils unable to refer to written information during the lesson, whilst their sighted peers can"*. He said that this is likely to

constitute a substantial disadvantage in comparison with the sighted pupils, and the failure to take reasonable steps to prevent this disadvantage is likely to be unlawful.

#### **4.4.2 “Am I providing appropriate compensatory activities?”**

Teachers expressed that learners with visual impairment, because of their visual problems, lack certain experiences that requires sight, as a result it is not good to assume that the VI child has prior knowledge just as the sighted children. This finding shows that teachers are aware of the fact that visual impairment reduces the quality or value of any visual information or experience and that the visual information will become far more meaningful if supplemented by first hand or concrete activities which can also be appreciated through other senses. As one teacher said:

*“The visually impaired child will not see the way we see, but be assure you that he or she sees in another way. I am amazed at the way these VI children views the world. I have learned to slip things into their hands so that they might “see” the rock or the coin or even the caterpillar with their fingers. Fingers that reach out to know life as the sighted world says it is. Fingers that appreciate soft and smooth, rough and prickly as only the blind can”*

#### **4.4.3 “Am I being reasonable in the visual demands I am making on my pupils?”**

Teachers further explained that visually impaired pupils will, though no fault of their own, take longer to finish detailed visual tasks and find them more physically tiring than their normally sighted peers. Teachers therefore consider making some allowance for this, either by providing extra time or by reducing the volume of work required. Teachers also said that they consider the visual fatigue factor. They said that for the low vision children who use large prints, there are conditions that will result in eye strain or headaches if detailed visual tasks have to be undertaken over a sustained period of time, as a result levels of concentration and the quality of work may be compromised in these circumstances. So, a teacher put it, “ *teachers need to be aware of the potential repercussions of increased visual stress and tiredness*”.

#### **4.4.4 “How do I grade my support to learners?”**

4 out of 10 regular teachers talked about how they consider grading their support and attendance to their learners, particularly in relation to VI learners who require much time to finish their work on the task given. One of the 4 teachers said:

*“I grade your attendance to my pupils by dealing with the sighted ones first; by the time i have explained the procedure 3-4 times, the VI learners will have had the advantage of hearing the instructions several times and the more able will not be bored.”*

They further said that it is necessary to consider allowing the pupil to work out part of the task they can complete on their own and which part that will require assistance. In giving assistance, teachers said it is important not to overdo it, let the VI child feel that he or she can do it.

In summary, teachers came up with several factors which they said they considered in relation to teaching children with visual impairments. Among others were; Talking to VI pupils and checking if they follow and understand the teacher, providing appropriate compensatory activities, being reasonable in the visual demands the teacher is making on VI pupils and also how to the teacher grade his or her support to VI learners. Another factor that teachers also expressed was to remember that if the teacher gives the specialist teacher a complete unit of work to be written in braille, to was necessary to indicate when the teacher is likely to need each part so that the specialist teacher know which work to priorities since some work particularly diagrams, take a long time to prepare.

#### **4.5 Factors teachers take in to consideration when assessing their teaching of classes with children with visual impairments.**

Teachers were also asked to give and explain some of the things they take into consideration when they are assessing their lessons in relation to children when are visually impaired. The questions used as headings are here too derived from the direct questions captured from teachers’ expressions during the interviews. The following is the presentation of the factors teachers consider;

##### ***4.5.1 “Have VI learners understood the teaching content of the lesson?”***

Teachers expressed that it is important to constantly ask oneself both during the lesson delivery, as well as at the end of the lesson whether children, including those with visual impairment have understood the teaching content of the lesson. Teachers said that they mostly use oral questions to find out if children are following the lesson and to assess the level of objective achievement.

##### ***4.5.2 “Am I varying methods of assessing VI learners?”***

Teachers expressed that they consider how to use a variety of assessment formats in relation to children who are visually challenged. The teachers said that apart from using the usual question and answer method, other formats may be appropriate to VI children. Some things may be recorded on

tapes, if available, to be listened later by a VI child. Homework sheets should also be prepared in advance where possible to give the student the same time to do and complete as other children. Regular teachers stressed the fact that it is important to remember that although the VI specialist teacher prepares the work for the VI pupils, it should be with the guidance of the regular teacher, since the specialist teacher may not deeply know the learning objectives as fully as the teacher is planning them to be. However the VI specialist teacher will have good ideas as to how this can be done, but ideally the teacher should give them an indication of what they want from the pupils.

#### ***4.5.3 “Would I like to be in one of my lessons if I was visually impaired?”***

Another important factor teachers consider during assessment of the lesson is to reflect on the whole teaching and learning process by asking themselves if they would like to be in one of their own lesson if they were to be visually impaired. One teacher expressed herself saying that each time, after delivering a lesson she sits down and reflect on her teaching practice in relation to children who have visual problems. The most important question that she asks herself is “*if I was to be blind, would I have liked to be taught or handled in such a way as I handle these VI children?*” In my opinion, I consider this factor to be very important and I wish each and every teacher teaching ordinary classes with visual impaired children should be ask oneself.

#### ***4.5.4 “What safety precautions should be considered in relation to VI learners in this lesson?”***

The other issue that was raised by almost every teacher was the issue of safety. Teachers emphasized the need for safety precautions at all times and in all places since VI learners have a problem noticing and avoiding obstacles that might hurt them. They therefore emphasized that it is important to start looking at safety issues right from the lesson planning level, through to lesson delivery and lesson evaluation. A teacher expressed himself, saying;

*“...in relation to children who are visually impaired, I always aim at making my classroom a safe and comfortable place, although it is very difficult to achieve this because of the large number of learners in my class. However I try every time to remind the sighted children to clear things or obstacles that may hurt or injure those who have visual problems in the classroom(Interview, 26.02.09)”*

The need for safety measures was also expressed by a mathematics teacher who conducts her class outside, under a tree. The teacher said when teaching a class with VI children outside under a tree, there are a lot of things that can hurt these children, for example, most of the VI learners complain that they are bitten by ants. She further explained that she has had cases where VI learners have fallen

and hurt themselves after stepping on the stones that are used as sitting “chairs” for the learners. To avoid this,” *I always assign a sighted peer to help the VI learners when walking around*”

In a summary therefore, it was interesting to see that most of the regular teachers that participated in this study had wonderful ideals concerning the things which they considered when planning, delivering and assessing their lessons, especially baring in mind that there were children in the class with visual problems and even some children who were not able to see at all. However, the crucial part is now to see if these considerations were just ideas or were something which the regular teachers really did or practiced during the delivery of the lesson in relation to VI children's Below is a presentation from the 3 lessons done by 3 different teachers who will represent the teachings of the observed lessons at this school. These teachers have been given names as teacher A, B and C.

#### **4.6 Lesson implementation.**

This part will be done by presenting and contrasting the selected 3 lessons by teachers A, B, and C. Three lessons have been selected because I want to have a clear and focused contrast and comparison between and among these lessons. It could become more problematic to clearly show the similarities and differences in the teachers practice if more teachers and cases of lessons are to be used. Choosing these three teachers was done by firstly, carefully going through and examining all the notes from observations and interviews of all the lessons by all the teachers I observed in the field. The second step was forming criteria that were used to compare the different practices of teachers. These criteria included; ways how teachers introduced their lessons, adaptation of language of instruction, teaching methods that they employed, Use of individualized instruction, teaching and learning materials, use of concrete materials during lesson delivery, classroom learning tasks, mediated teaching, step by step guidance, motivation from the teacher, content selection and sequencing , communication of VI learners with the teacher and peers in class, and finally on assessment of lessons. These categories were derived from the data collected and inspired by the didactic theory and aspects in the socio-cultural learning theories. After a critical review of the teachers in different lessons, I purposively choose these three teachers` lessons by looking at which one had more positive relation to the categories listed above(teacher A), which one was just average(teacher B) and which one displayed the least positive relation to the categories listed above(teacher C).

##### **4.6.1 Lesson introduction: How did teachers introduce the lessons?**

These three teachers introduced their lessons differently. Teacher A started the lesson by telling the pupils to get settled. The pupils followed the teacher’s instructions. However some pupils remained

unsettled; the teacher noticed them and ordered them to get settled. He then informed the learners that they were going to continue from where they stopped in the previous lesson. He then asked the class;

Teacher: what did we learn in the previous lesson?

Pupils: Additions

Teacher: (*smiling*) additions of what? What were we adding?

Pupils: Additions of units, tens, hundredth and thousandth

Teacher: Very good! Am happy that everyone remembers what we did in the previous lesson.

However I was not very happy with how most of you did in your homework. Some of you have not done well while some of you did not submit your note book. Remember to submit.

This teacher therefore introduced the lesson by referring to the previous lesson learnt and then commented on the home work given to the pupils before going into the day's lesson content.

Teacher B, came in the class which was making noise. She looked around, smiled and greeted the learners. The learners stood up, greeted back the teacher and then sat down. The teacher settled the pupils down and told them that she would like the class to sing a song. The teacher introduced the song to the pupils and they began to sing. The class knew the song as all the pupils participated in the song. At the end of the song, the pupils showed that they were waiting for another song. The song was short but interesting to the pupils, this was even seen when the pupils with visual impairments could sing with joy and movements. More importantly, the song was about road signs and its importance, the topic which the teacher was going to teach that day. Then the teacher asked the learners questions relating to the song which they had just sang. The teacher continued with the topic for the day when the pupils showed that they were all alert and attentive. On the other hand, teacher C taught a mathematic lesson based on the aspect of division. Here the investigator noticed that the teacher went straight into the topic for the day with no specific introduction. She began her lesson by telling her pupils to take away all the other materials that they had been using and to get settled down. She then wrote a division problem on the board and started demonstrated how to solve it. Thereafter she called on to the pupils to do similar activities. The pupils struggled to do the similar activities that the teacher had set. The lesson progressed like that, however the researcher noticed that there were still a number of pupils who were not settled and were making noise, but the teacher did not take any measures to control the noise. These three ways on how the teachers introduced their lesson gives a clear picture that teachers give different degree of efforts in stimulating learners' motivation to learn.

#### **4.6.2 Language of instruction**

These three teachers used different languages of instruction in their teachings. Teacher A in his mathematics lesson switched the language of instruction from the official medium of instruction



English to local languages called Chichewa and tumbuka. He mixed both Chichewa language, tumbuka language and English language in his instruction. He could be heard switching to mother tongue especially when he emphasized points and when he repeated instructions. He also allowed pupils to answer to his questions in vernacular language and then translate it into English. His mode of instruction also included facial expressions and hand-gestures when he put emphasis on some of the instructions. Pupils' response to the teacher's questions was seen to be high. The teacher did not only say, but also wrote on the blackboard. He kept on asking individual pupils, especially VI pupils whether they had understood and if there was anything the learners have not understood.

In another class, Teacher B mixed the language of instruction for her pupils between English and the national language chichewa. The teacher also included voice modulations, high and low pitched voices as well as differentiated body language during her teaching. She could be heard using almost very high-pitched voice and at some times she would be using normal to very low voice. It was discovered that she raised her voice when she intended to stress a point. Hand gestures and facial expressions could be seen to be used quite often. On some facial expression, she could be seen to tighten the face, look into the pupil's eyes or to pull a long face especially in disapproval of a response. In a follow up interview, she pointed out that she tries to vary her voice so that the VI learners can sense the intensity of the situation. She said;

*"I know that VI learners, especially those who are totally blind are not able to see me or see the gestures I am using. Therefore I also try to use my voice as a tool for delivering instruction to my learners. Just using one flat voice does not bring any stimulation to a child who is not seeing you. I therefore try to deliver instruction to my learners including those with visual impairment by using a variety of voice modulations and tones. I don't know how effective this is, but I have to do what I think it can help them benefit more from the lesson"(Interview, 27.02.09).*

This teacher therefore added to her instructions a combination of words, gestures, and facial expressions to express with full meaning to her VI pupils what she meant in her instruction.

On the other hand, teacher C taught the full lesson in English, which is the official medium of instruction. Questions were asked in English and she also expected the pupils to respond in English. However, the researcher observed that most of the VI pupils found problems to respond to the teacher's questions in English either because they did not understand, or they knew the answers but they were shy to speak English. The pupils did not participate lively as those in teacher A and B's class. In a very short summary, it can be concluded that the adaptation of language from the official

language to the local language increased participation of VI children in their learning process by enabling them to talk to the teacher and fellow pupils in the class.

#### ***4.6.3 Teaching methods used by teachers.***

In relation to the teaching methods, the major focus was to see if teachers use methods that help children with visual impairment to participate in the classroom fellowship and benefit from the lesson just as much as the sighted children do. Observations show that there was lack of variety in teaching methods used by teachers in their classroom teachings. Most teachers just stood in front of the classroom and lectured to the pupils, and then the teacher could ask a few questions, especially at the end of each lesson. However, when teachers, in the interviews were asked to mention the kind of teaching methods they used in their classroom teaching, the answers provided were group work, pair work, question and answers method, demonstration, role play and lecturing method. This therefore, shows that the teachers used a variety of teaching methods, which was contrary to what was observed in the lessons observed. When I asked individual teachers to give two major methods they used most, of the 10 regular teachers, 9 teachers, including teacher A, B and C said that lecturing is the most used method, followed by question and answer method. Just one teacher mentioned group discussion method. When the researcher then asked teacher A, B and C individually to explain the major reason why they used lecturing and question and answer methods most than other methods, different reasons were given. Teacher A explained that it was because of the large number of pupils in the class, making it problematic to use other methods such as group work. Teacher B said that other methods require much time to prepare, organize and carryout in the class, for example when using role play method. She in her own words said;

*“I most of the times use lecturing method because of the size of my class. I don’t like using group work because it takes much time to organize and control children in the groups....as you can see, the classroom is fully packed, how can I organize them? That is why I just use lecturing method. What about question and answer method and discussion methods? I use questions and answer as a way of lesson evaluation both during the lesson implementation and as a way of concluding my lessons(Interview, 27.02.09)”*

Teacher C, on the other hand, said that she uses lecturing method most of the time because it is the easiest method to employ in a class with a large number of pupils. In all the classes, the lessons went on, with the teachers using the same instructional method to the whole class without differentiating between the sighted children and those children who were visually impaired. Just 2 regular teachers said that they were satisfied while 8 said they were not satisfied with the teaching methods they used.

Teacher A was one of those who were satisfied, while teachers B and C were among those who said that they were not satisfied. On this issue, teacher C commented that:

*“I am not so much satisfied with the teaching methods I use to support children especially those with visual impairment in my class due to the influence of the high enrolment. To conduct active teaching and learning methods such as group work is almost impossible and difficult to control. To demonstrate activities to a visually impaired child is stressful and time consuming in such a big class”*(Interview, 2.03.09)

In a conclusion, many teachers expressed dissatisfaction with the method of instruction they used more especially in relation to children with visual impairments. There is need for teacher to consider and reflect more on the choice of methods they use. One specialist teacher commented on this issue saying that most class teachers need to be supported with more teaching skills and appropriate teaching and learning resources to successfully meet learning needs of children with visual problems in their class.

#### **4.6.4 Individualized Instruction**

From the interviews all teachers expressed that just as all sighted pupils are different from one another, all VI students are not the same, and therefore there was need to individualize the instruction. For example, from the observations, In a Mathematic lesson, Teacher A gave the instruction to pupils both as a class and also to individuals. After giving the instructions to the whole class, the teacher was seen moving on to individual learners, including children with visual impairments to instruct them on their activities individually (see picture3). Some of the pupils both sighted and those with visual impairments were seen further explaining the instructions to fellow pupils in small groups. In addition, teacher A did not rush the pupils to finish their work. Instead, he encouraged them to take their time and to make sure they do their work correctly. In a follow-up interview the researcher asked this teacher why he gave individual help, his response was; *‘All the children, with or without visual problems have individual differences, and so they should be treated differently as they all have different needs.’* The pupils worked on their individual activities and were seen constantly seeking approval from the teacher individually. Teacher A also expressed the fact that it was difficult to meet the demands of individual students in a class with too many pupils but expressed that he puts his best effort to do so. He concluded by saying *“It is not easy but I make sure that I reach for each and every child in that one lesson. If I do not manage to attend to learners in today’s lesson, I make sure that I consider them in the next lesson”*.

Teacher B also showed some traits of individualized instruction. Since she was teaching on a topic of road signs, she occupied the sighted pupils with work which required learners to identify the road signs and draw them. She gave the instruction first to the whole class, before she moved on to the VI pupils to give instruction individually. In a follow-up interview, Teacher B explained how she individualized her instruction. She remarked:

*‘Before I concentrated on the VI children, I first occupied the others learners with the task that I planned for them in advance. I knew that learners in this topic will be required to identify different road signs. But for VI learners, especially those who are blind, are not able to do this because of their sight problems. However this doesn't mean that I should leave these children idle while their peers are working. That is why I prepared another work for them. I asked them instead of identifying, they should name any 4 road signs they know and explain why the named signs are important. I individually went to each VI learner and explained the task so that they understand clearly what I want them to do’ (27.02.09)*

The teacher also worked with the sighted children individually on a one to one basis by going around the class, supervising their work and helping where she saw that the child was struggling. These two teachers therefore showed that they had a concern for their pupils, both sighted and visually impaired as noted through their efforts even in difficult circumstances to individualise their instruction and making a follow-up on the pupils left behind during the lessons, assisting and offering their help to learners where necessary.

Although these teachers expressed the need for individualized instruction, the teaching practices in some classrooms were not inline to this. Some teacher observed did not show any sign of trying to give individual help to children with visual impairment or any individual child in the class. An example is Teacher C who did not individualize her instruction to individual pupils in her class. Her instructions were directed towards the whole class. The teacher posed questions to the class. Only a few hands were raised to respond to the teacher's questions and just few pupils answered correctly to the teacher's questions. In relation to children with visual impairments, most of them sat quietly throughout the lesson. They were not seen to answer any question and the teacher did not encourage them to do so. The teacher again attributed her failure to individualize her instruction due to too many pupils in the class and expressed the difficulty in individualizing instruction in such settings.

#### ***4.6.5 Availability and use of concrete materials for teaching and learning in relation to VI children***

Teachers mentioned materials like: Braille machines, A4 frames, thermoform, stylus, Braille writing papers, manila sheets, brailled charts, Braille text books, large prints textbooks, magnifying glasses and as some of the important materials that children with visual impairment require. Out of 10 regular teachers who had no any training in special education, 1 teacher had problems mentioning teaching materials necessary for VI children to be effectively involved in the classroom teaching and learning activities. This indicates importance of professional development to teachers so that they can understand basic requirements for the VI children and hence be able to help them in their learning. All 10 ordinary teachers said in a follow up interview that they have no skills in using the resources such as Braille machines, and the A4 frames used for writing.

All 10 regular teachers plus 2 specialist teacher agree that teaching and learning materials were not adequate at all. Teachers indicated that the materials are supplied by the government through the Ministry of Education. Since these materials are not enough, sometimes well wishers offer help. These materials are generally text books in braille, braille papers, large print text books, pens, pental markers, crayons etc. Regarding the appropriateness and effectiveness of the teaching and learning made by these materials, all teachers and specialist teachers agree that these materials are appropriate and effective in the process of learning. Teachers expressed that in the absence of these materials from the Ministry of Education, they use material found in their local environment during their teaching. The researcher observed that in most classes, teachers relied on talking and writing much on the blackboard so that learners can take notes because of lack of learners' text books. This result into use of what I call "talk and copy" teaching methods. Teacher B commented that:

*"...currently there are very few learners textbooks. The low vision learner use the same normal-font text books which children who do not have visual problems use. This presents a major challenge to the low vision pupils in reading and to capture the information from detailed diagrams or illustration. As for those children who use Braille books, it is even worse. Up to now, in many subjects the braille- textbooks have not yet arrived. Blind children therefore rely on the class teachings and if lucky, when a sighted peer read aloud for them"*(Interview, 27,02.09)

Of all the lessons which were observed, which were around 20 lessons, the use of concrete materials were observed in 4 lessons, which mean that most teachers did not use concrete materials in their lesson delivery. Most teachers were just heard referring to things or materials in absential, while others just taught without even referring to any materials. In relation to teacher A, B and C, they too

did not use any concrete material in their lessons. However, teacher A and B were most of the times heard referring to them. For example in a lesson by teacher B on road signs and their importance, the teacher taught the whole lesson without a single concrete road sign even though the possibilities of finding these road signs from the local community was high. The teacher could have used concrete materials as examples to learners to make the lesson more relevant and interesting had it been that the teacher was more resourceful. She instead used just illustrations which were in the pupils work book. The same thing was observed in the mathematics lesson by teacher C and others classes. In the follow up interview, teachers were therefore asked what they thought about the use of concrete things in their lessons. 8 of the 10 regular teacher said that although it is very helpful to the pupils to be shown the objects and to the VI children to touch the object and feel them, it was a challenge to acquire the materials. They argued that with the use of concrete materials VI pupils became familiar with the real objects. Teachers also expressed that the use of concrete objects or teaching and learning aids, helped the teacher to simplify her explanations and instructions of the concepts to her individual students. Another teacher in a follow-up interview commended that: *“concretization in teaching seems to make it easier for my pupils, both with and without visual impairments to understand the concepts better”*. When asked why they did not use concrete signs in addition to the illustrations in the text books, the teachers simply responded that they lacked time to look for the concrete objects. Teacher C said;

*“I sometimes use concrete materials in my lessons. If I am using any equipment or showing objects, I hand them over to the VI pupils so that they can feel what it is like and even smell it if necessary. It is just a shame that due to lack of time, I did not use concrete objects in today’s lesson.....I do not mean that it is easy to use these concrete objects. It is always a big challenge because most of the times I don’t know how best to do it in order to help the VI children understand the illustration or diagram better”* (Interview,02.03.09).

#### **4.6.6 Mediated teaching practiced in the class.**

On the issue of mediated teaching, the researcher was interested in observing if the teachers interposed any kind of assistance to learner especially to those who were visually impaired. On this aspect too differences were observed among teacher, with some providing mediation and other teachers not providing any mediation to the VI children in their classes. Teacher A used mediated teaching throughout his teaching, teacher B also showed some traits of mediated instruction while teacher C did not show any sign of being a mediator in her lesson delivery. Teacher A interposed his assistance for an activity in a bid to simplify it for the learner. The teacher went round his class

during the individual exercise work, identifying learners who were stuck and needed assistance. He went and checked on the VI individual pupils where they had problems. His effort was seen mostly in identifying the neediest and interposing his assistance to modify and/or to simplify the activity so that the pupil, also those with visual impairments would respond in a more competent manner. The teacher was seen to include also verbal mediation, helping the pupils out mostly verbally by providing instruction. With the mediation of the teacher, most VI pupils were able to do the activities that the teacher gave them correctly.

Mediation in teaching was also observed when one specialist teacher was teaching how to count and write figures to class 1&2 VI learners. In one instance, there was a child who was blind and was struggling with how to count by mixing the figures. This child had developed some little confusion in counting by jumping the number "8". The teacher noticed that and quickly intervened. He pointed out the mistake, clearly letting the child know that she was jumping the number 8 in her counting. Then the teacher actually demonstrated the solution by counting, also using his figures to help the child understand. When the teacher mediated in the pupil's learning, child's confusion disappeared and she could count correctly on her own. There were also other instances shown in the lessons of other teachers that indicated their mediation with the learners. However, it should also be pointed out that not all teachers were seen doing this mediation with their learners. In my opinion, there is still need for teachers at this school to be informed on the need and importance of providing mediation teaching to VI children as well as to sighted children.

#### ***4.6.7 Step by step guidance provided by teachers during the teaching and learning process.***

There were also other teachers who were observed using guided participatory method, where they guided the pupils in the content mastery, taking one step at a time. For example in teacher A's lesson, he worked together with the pupils step by step, guiding them up to the end. Below is an example to illustrate how teacher A guided the pupils step by step:

Teacher A: When working on addition with carrying, what is the first thing that we need to do

Pupil: We start by drawing columns, one column for units, another column for tenth, another for hundredth and finally another one for thousandth.

Teacher: Very good Cyrus! Now what is the next step?

Pupil: allocate the figures in their right column

Teacher: That is correct Rose! In the first figure 2238, in which column will we put these digits?

Pupil(low vision): 2 under thousandth, the second 2 under hundredth, 3 under tenth and finally 8 under units

Teacher: very good Jane. What about the figure 765? Where are the digits going to be placed?....

The same process was followed, and also for the third figure of 2513. The teacher continued to guide pupils as they worked on the activities in the same way until they finished the example task. Then the teacher gave the learners a similar task to be done individually. He wrote on the board and read the task over and over again both in English and vernacular language, to make sure that the VI learners and all others understand and copied the question and figures correctly. As observed, with step by step guidance the VI pupils were also seen to take active part during the lesson. The step by step guidance of the teacher and the involvement of all the pupils in the learning process assisted pupils to move to the next step after mastery of the previous step. The teacher's guidance and child's participation in the activity made VI learners to become confident and were seen to enjoy in accomplishing the given tasks. On the other hand, there were also certain lessons observed which showed lack of step by step guidance. In such lessons, for example, in teacher C lesson, a number of VI pupils could not do the activities set for them correctly and VI children's participation seemed to be low. Most of the pupils were so quiet throughout the lesson.

#### ***4.6.8 Motivation and use of prompts by teachers during lesson delivery***

Most teachers were observed using different ways to motivate all the children, with or without visual impairments, in classroom activities. In all lessons by teacher A, B and C, pupils were motivated by the use of positive verbal reinforcements for every correct response that a pupil made in the class activities. For example, these teachers used words like; that is right! very good! let us clap hands for her, well done, keep it up! Excellent! among others. Teacher A was also observed moving among the learners, marking their work and giving positive feedback and words of encouragement to learners. Some excerpt from the teacher included; *"Ooh (smiling) today whoever gets these mathematics problems correct, I will write an excellent in his or her book"*. *"John (a VI learner) has scored everything correctly, congratulation!"* (John produced a smile in response to what the teacher has said). The friendly learning atmosphere, which the teacher created with these learners, was also another way of motivate the pupils. In a follow-up interview with Teacher A, he explained that he tries all the time to raise the inspiration in order for all the learners more especially those with visual impairments to stimulate them in the activities because most of the times, due to unfavorable classroom environment, most VI learners lack motivation. The high motivation of learners in this class confirmed when the learners, after finishing the problem which the teacher gave them, started asking to be given another problem. This was very much inspiring. The teacher continued praising individual VI pupils for efforts that they were making. The pupils who had not yet received praise from the teacher kept trying and putting more effort to get praised.



Teacher B in her class tried to motivate the pupils by using a song. When she saw that children were not settled and some were making noise, she started singing a song which every child joined. In order to control noise, teacher C used a simple but common rhythm, whereby the teacher would raise her voice and say; Silence, silence! The learners would then respond in a chorus by shouting back; silence! It was interesting to observe that whenever the teacher used this rhythm the learners responded and stayed quiet, paying attention to what the teacher was talking about.

Teachers were also observed employing physical prompts, verbal prompts as well as visual clues in their teaching in order to stimulate all the learners especially those with visual impairments. It was observed that the teachers intentionally employed the prompts like gestures and facial expressions, everyday-situation examples etc. Teachers expressed that physical prompts were quite vital in their teaching of children with visual impairments as expressed by teacher A;

*'I mainly depend on physical prompts depending on the types of visual problems that my children have in order for them to achieve something. For those who are totally blind, I take the learners one by one, literally getting hold of their hands and physically prompt them to touch the objects or anything that I want them to feel and identify because I know that in spite of their visual problems, these learner need to know things and be able to identify them when they are both in and outside the classroom'*(Interview,24.02.09).

#### **4.6.9 Content selection and sequencing**

There was no content differentiation observed in the lesson deliveries and all teachers confirmed this during the interviews. Both teachers A, B and C said that they taught same content to all learners with or without visual impairments in their classrooms. The only difference these teachers said they considered was when the content was in diagram form or during the use of illustrations. Teacher said that they sometimes differentiated the learning activities, between VI learner and sighted learner whenever necessary, but otherwise they all do the same class activities, and same content. The only consideration done was giving VI learners more time to do and complete their activities than the sighted children. Although these teachers said that they gave extra time to VI children to complete the classroom tasks, according to the observations I had, none of the teacher seen or heard giving an extra time for VI children to finish their tasks. It was further observed that as soon as the bell rang, which was an indication that the period for the subject is over, all pupils were expected to hand in their work whether they have finished it or not, and in most of the tasks, VI learners did not finish their work. This is yet another example where the information given during interviews did not match to the information gathered from observations.

On the content sequencing part, some teachers like teachers A and B, were observed sequencing the learning content according to the complexity of the activity, which was from known to unknown, and from simple to complex. The ideas followed a logical progression, each new step building sequentially on the step before. This helped the pupils to progress steadily. A clear sequencing of content was also observed in class 1 and 2, where pupils were being taught how to count and write figures. The teacher broke down the learning aspects of his mathematics lesson, working with single digits first, and then two -digit. He introduced the figures by asking learners all together to count from 1 to 10 before being told to write the figures in braille and large prints. This was used as a motivation buster to the pupils, starting from what they already know to what they were to learn, and from simple to difficult, in this case from counting to writing. Whenever a child has counted, the teacher asked the whole class if he or she has counted correctly. In a follow up interview, the researcher asked the teacher why he asked other children to assess if their fellow child was correct. He responded by saying; *“I feel that it is important because it enables other children to get involved in critical appraisal of each other's work in a positive manner”*. The VI pupils were asked to write, while the teacher moved around the class supervising and marking the learners work until all the children had a chance to write figures 1 to 9 correctly before progressing to counting and writing the next step which was from 10 to 20. He only progressed to the next step after the pupils had mastered the prior concepts since mastery of the basic concept determined progression to next step. This sequencing can also be described in relation to how teacher A taught. By starting with reminding pupils of what the previous lesson was about, shows that the teacher wanted to remind the learner of what they already know so that the new information can build on top of the old one.

#### ***4.6.10 VI pupils' communication with the teacher and sighted peers during classroom activities***

From the researcher's observations, Communication of teachers with the VI children varied from across teachers and across classes. In some classes, there was a remarkable communication between and among children with visual impairments, their sighted peers and the teacher, while in other classes, there was a communication breakdown between VI children and the teacher and sighted peers. In relation to teachers A, B and C, the same variation in communication was also observed. Taking the lesson by teacher B as an example, the class was lively with sighted pupils communicating and assisting their VI peers in different activities. The teacher too was charming and able to keep a cordial relationship between the teacher and the VI pupils. In this class a friendly atmosphere was felt in the way the VI pupils asked the teacher questions and the way the teacher responded to the pupils' questions. In a follow up interview, teacher B said:

*“I ensure that the VI pupils are given a chance to express themselves in any class activities. Sometimes I ask pupils to work with a partner or in groups. I ensure that VI pupils should also do this, and not work alone instead. I facilitate the making of the groups rather than leaving it to the VI child to organize partners for herself or himself”* (Interview,27.02.09).

However, in some lessons, like in teacher C class, the researcher felt that there was a breakdown of communication between VI learners and the teacher as the teacher carried on the lesson as if all the children were sighted. For example, teacher C was heard several times using the words; this, that, those, there, here etc when referring to what she has written on the board without really saying what she was referring to and without the VI children asking what the teacher was talking about. In such cases the researcher felt that the teacher did not care about the VI learners and that the VI learners were either afraid of the teacher, or they were too shy since they just kept quite almost throughout such lesson without asking the teacher what exactly she was referring to.

#### **4.7 Assessment of VI children’s progress**

Teachers were asked how they assess the VI learners in relation to the rest of the class. All teachers strongly agreed that all pupils are assessed equally, that there is no difference in the means of assessment. Pupils with visual impairment write the same tests and class assignments and home work just as any other sighted pupils. Teachers expressed that there are two major things that are considered when assessing the VI learners. First is modification of the work to suit the VI learners, and the second thing is the time factor. Teachers expressed that there are certain problems, for example in a test where a child is required to identify a picture, or questions which require the child to label a part, or even draw. In such instance, it is the duty of the regular teacher to seek help and work hand in hand with the specialist teacher on how to reformulate the question so that it doesn’t lose its meaning and at the same time make it more appropriate for the child to achieve the goal. The second thing is time. Teachers expressed that they give extra time to VI learners when they are working on a problem. However, during the observation the researcher did not see teachers giving extra time to VI pupils to finish their work. This is another instance where data from interviews do not match observed data.

The type of assessment teachers use were found to be both formative and summative assessments and that all pupil’s performances, including children with visual impairments, is ranked using the scores of midterm tests or end of term test that all learners write. In formative assessment, teachers said that progress of VI learners in a lesson is checked regularly by using mostly oral questions. At the end of each lesson, pupils are asked either oral questions or written work as a way of evaluating the

achievement of the lesson objectives. Teacher A gave the learners a task to work on which he marked right in the classroom. while teacher B used oral question and teacher C gave the pupils division tasks as home work (See picture 4 of teacher marking pupils work). Teachers also give continuous monthly tests and mid-term/semester test to all learners. At the end of each term/semester there is a summative evaluation test for the work covered. In relation to these evaluations, 9 regular teachers gave the opinion that pupils with visual impairment are not given very much practical activities during assessment of classroom progress. 1 teachers indicated that visually impaired students are not given practical activities at all. In conclusion, the teaching practices of the teachers varied. While some teachers seemed to adapt their lessons in relation to children with visual impairments in their class, other teachers taught as if all the children in the class were sighted.

#### **4.8 Challenges faced by regular teachers when teaching classes with children who are visually impaired and their recommendations.**

##### ***4.8.1 Lack of training to regular teachers on how to handle learners with visual impairments.***

Teachers had a view that managing classrooms that accommodated VI children need specialized skills, as the VI pupils lack an important sense organ of sight in learning. The difficulty was caused by the lack of knowledge and skills due to lack of training for the regular teachers in visual impairment issues. Related to this problem is also the challenge of shortage of specialist teachers at this school. Regular teachers complained that there was a shortage of specialist teachers against a large number of VI learners, as a result the two specialist teachers were overloaded with work, and help to regular teachers is reduced. Therefore it was difficult for regular teachers to meet the required standards of managing learning needs of children with visual impairment without the full time support of the specialist teacher. To these problems, teachers recommended the need for regular teachers to get training in visual impairment issues. Both specialist teachers and regular teachers thought that training in handling VI pupils that are included in the classroom is important in order to build their confidence when they are teaching children with visual impairment in their classrooms without relying much on support from specialist teachers. Teachers also suggested that the teacher training colleges should review their curriculum and include issues that concern how to manage learners with special needs in regular classes.

##### ***4.8.2 Inflexible classroom environments***

Findings showed also that there was shortage of infrastructure at this school; as a result teachers were faced with challenges of failing to adjust the learning environments for the benefit of the learners.

Classroom blocks were not enough which led to some classes being conducted outside under a tree, which presented many challenges to both the teacher and learners in the teaching and learning process. The classroom blocks which were available were not big enough to comfortably accommodate large numbers of learners. Furniture such as desks and chairs were also very few in most of the classes, forcing both VI pupils as well as sighted pupils to sit on the cold floor all day. Teachers suggested that there was need to improve the physical conditions of the classes and create a VI-friendly environment. In creating this VI-friendly environment, teachers suggested that the physical aspects of the school environment should be modified for VI pupils by building more and big classroom blocks so that VI learners learn in a well and move freely in a spacious class, furnishing the classrooms with enough chairs and desk so that VI children can sit and write comfortably, creating land marks which act as points of reference, and shorelines in the school compound to ease movement, demarcating activity areas, appropriate lighting, and large print/Braille labels to ease exploration and identification of objects. Another teacher suggested the need for counseling the VI children about their impairment, potentials and needs; as well as awareness among the sighted peers so they may eventually understand and accept their colleagues with low vision.

#### ***4.8.3 Inadequate teaching and learning materials.***

Teacher also complained about lack of teaching and learning materials especially, materials for children who use braille due to the new curriculum which was introduced in schools without providing text books and other teaching and learning material for VI children. The school does not have braille text books, lacked braille papers, large print text books, pens, crayons, etc. Braille-writers, tape recorders and printers were also not enough to support 46 VI learners who are at this school. There were just two braille writing machines for the whole school, 4 computers and 1 printer, which considering the number of VI learners at this school, the materials were not enough. To this problem, teachers said that there is need for the school to buy more materials if possible. They also recommended that teachers needed to be encouraged to be resourceful and use materials found in the local environment as teaching aids. Teachers recommended that there is need for teachers to be more creative and resourceful and use materials that are found in their local environment rather than waiting for the materials to come from the Ministry of Education.

In summary, this chapter has presented the information that was gathered during data collection period in the field.

## **CHAPTER FIVE: DISCUSSION**

### **5.1 Introduction.**

Children with visual impairments are today found in ordinary classes being taught by regular teachers, learning side by side with their sighted peers. It is therefore a duty of these regular teachers to plan and deliver lessons that will encompass the individual needs of all the diverse learners in the class. In order to do this, teachers need to take into consideration a lot of factors that can help VI pupils to be active learners and achievers, starting from the time they are planning for the lesson, during delivering and also when assessing the lessons despite the challenges that they might meet. This chapter will discuss the findings on how regular teachers at Ekwendeni primary school in Malawi teach children with visual impairments in ordinary classes. The first part of the chapter will concentrate on discussing my results on how teachers plan and teach VI learners in their classrooms as seen from a socio-cultural perspective and didactic relation theory presented in chapter 2. In order to do this, I have presented the discussion into several themes taken from the results presented in chapter 4. These categories include; Mediation learning, Motivation of VI learners, Communication in class, Step by step guidance, Concretization of the lesson, Instructional methods used by teacher and Assessment and feedback. I have chosen these categories in order to give the readers a clear logical relationship between the result presented and the discussion that is going to be done. A discussion of the challenges teachers meet in relation to teaching classes with children who are visually impaired and their suggested recommendations will be done. These challenges represent the main explanation to why the teachers' studies in this research taught their classrooms as they did. As a way of concluding the chapter, a brief evaluation will be done in order to assess the extent to which one can conclude that children with visual impairment are included in their classrooms at this school. This will be done by relating the practice observed in the classes plus the information given by teachers during the interviews to the four aspects of inclusion which include; participation, fellowship, democracy and benefit. It should be highlighted here that it was not possible to draw a clear boundary between what the teachers did specifically for children with visual impairment and what the teacher did for the whole class in general during the implementation of the lessons, as a result the discussion below has been done by looking at the general practice of the teachers, with reference to occasions which seemed to be more directed to the children with visual impairments.

#### ***5.1.1 Mediation during teaching***

In chapter two the theory by Feuerstein and Feuerstein (1991) on mediation during teaching was presented. The theory focused on the interaction that goes on between human beings and their

environment via a mediator. According to Feuerstein and Feuerstein (1991), human mediation is a conscious attempt of an adult to adjust his strategies and modify the environment in a way that will ensure the learner will benefit from it. According to Feuerstein (1990), children are exposed to two types of learning situations: *direct learning* which includes an unmediated interaction between learning material and the child's mind. He points out that if the child's mind is ready to this material it will benefit from it; but if the child does not know how to accept the material, cannot identify its meaning, or does not know how to respond, the second type of learning, the *mediated* one, becomes important. He defines mediated learning experience as: "*A quality of interaction between child and environment which depends on the activity of an initiated and intentioned adult who interposes him/herself between the child and the world*" (Feuerstein, 1991, p. 26). In the process of such mediation the adult selects and frames stimuli for the child, creates artificial schedules and sequences of stimuli, removes certain stimuli and makes the other stimuli more attractive. In a similar study, Parsons (1986) found that children with low vision were delayed in the development of play skills when compared to normally seeing peers. This hindered their ability to know the function of objects or how to play with them. VI learners may be placed in two groups; some of them who experience mild visual limitations and have a mental picture of the materials may be motivated to interact with it. On the paradox, children with severe low vision who may not have been exposed to similar materials before, may not easily accept to interact with it due to fear that it might be harmful to them. Such children may need an adult, which in this case are teachers or capable sighted peers to mediate the activity of interacting with such a material. They may also require the mediators to describe the characteristics of the material so the children may accept it. Again, mutual relationship and co-operation between the child and the mediator may motivate him or her to participate actively in activities engaged in. The teachers who used mediation in their teaching in this study, such as teacher A and B, were seen moving to individual pupils and assisting the pupils with activities that the pupils worked on. They interposed their assistance onto the VI pupils during learning when pupils showed that they got stuck, by explaining to them how to go about in the task. Success was noticed when the VI pupils who were assisted with the method of mediation progressed after they showed understanding of the taught concept. Simultaneously, the teachers help decreased, becoming less and less involved in mediating the child's mastery of the task, as stipulated by Hundeide (2003) in the principle of "graded support". Furthermore, teacher A simplified the activities by breaking the content into smaller manageable bits characterized the mediated teaching. Teacher B modified her voice in order to maximize the chance of VI learners to assess the situation, for example when a teacher is stressing a point or if a teacher is not agreeing with the answer a pupil has given etc. Even

though it could be difficult to draw a line or to relate experiments done on animals and aspects in human day-to-day life, these findings could also be related to Cole's theory of tool use, problem solving and culture as already explained earlier in chapter 2, concerning how chimpanzees learnt the skills of using tools through patterns of their community during infancy, through a mixture of social facilitation, observation, imitation and practice with a good deal of trial and error. This could be related to the efforts made by the teacher A and B. In circumstances where teachers did not mediate in the teaching and learning process, such as in teacher C class, the VI pupils were put in a difficult situation, and struggled in the learning process.

### **5.1.2 Motivating VI learners to participate in the learning activities.**

Bos and Vaughn (1998) say that motivation is an important part of how much a child will be interested in learning and also of how much a child will learn. This therefore indicates that children's ability to learn and to understand will vary individually. Some pupils both sighted and those with visual impairments can understand concepts if they are presented in one way but will totally misunderstand if they are presented in another manner. This is why even in every class I observed, there were certain learners, both sighted and those with visual impairment who seemed to understand the lesson, illustrated by their ability to answer the questions and complete the given tasks correctly, while other pupils in the same class seemed to struggle with their tasks. One explanation to this can be found in the way in which the teacher presented their lessons starting from the introduction of the lesson, development of the content as well as how they concluded the lessons.

The way a teacher chooses to introduce the lesson to the learners has tremendous effect on the motivation of the learners throughout that lesson. Mitchell (2008) says that the introduction in the lesson act as a way to warm up pupils, to ease them in to the class and to give them a context for what they are about to learn. Across the lessons that were observed in this study, it was found out that most of the teachers made some efforts to introduce their lessons in a meaningful and interesting ways. On the other hand, there were also a few teachers who just went straight into the content of the day without making any particular introduction to what they were going to teach. With reference to the three lessons of teacher A, B and C presented in chapter four, it was seen that these teachers differed in their way of introducing their lessons. Teacher A and B made some effort to introduce the lessons in an interesting and motivating way, while teacher C just went straight into delivering the content for the day. Teacher A preferred to start the lesson by providing and reviewing to the whole class an outline of what the learners will be doing that day. Giving a structure helps pupils especially



those who are not able to see to organize their thoughts and integrate new ideas. Since the lesson that teacher A taught was a continuation of the previous lesson, the teacher also summarized the previous lesson and commented on the pupils performance of the homework given, before going into the content of the lesson. In my opinion, summarizing the previous lesson was necessary because this helps all VI pupils to recall previous knowledge, which then gives them something to relate new ideas to. Steketee (1997) stress that starting a lesson from the learners pre-knowledge is important because learning is influenced by the interrelationship between what the individual child already know to what is about to be learnt. Teacher B started with a song which all the learners knew very well and enjoyed signing. She presented a song related to the topic and then asked pupils to explain what the song was talking about. Several questions relating to the song were asked to pupils before the teacher proceeded to the main content of the lesson. In this case, connecting what the teacher was going to teach with experiences learners are familiar with enables the learners to relate the topic to their everyday lives. This shows the learners that what the teacher is teaching is relevant and elicits their attention. These findings of teachers who made some efforts in their lesson introduction shows that such teachers may have considered doing so in order for the VI learners and all other learners to be more interested and motivated in the lesson. Teacher C on the other hand just went on to the main content of the lesson without giving any kind of introduction. This practice need to be discouraged if VI learners are to be motivated and benefit from the lessons.

Gregory (1991) says that introductions to lessons have the capacity to help students to focus their attention on particular stimuli. Romi and Leyser (2006) in their research found out that pupils with disabilities show inability to focus on particular stimuli, thus they need to be directed. In cases where teachers adapt their introductions to lessons, pupils become curious to learn and this leads to getting the children to concentrate on intended activities. For example, teachers A and B draw the attention of their pupils with adapted introductions for pupils to pay attention, concentrate and to do class activities. In a follow up interview, teacher C who went straight into teaching the content for the day said that she knew the importance of focusing the children's attention to particular stimuli, and that she in other lessons adapt her introductions too. The main thrust has therefore be to encourage teacher to make better use of existing expertise and creativity which they possess within any given educational context. I suggest that regular teachers in schools need to be encouraged to develop ways of reflecting on and analyzing their teaching practices, especially in relation to children with visual impairment, and identify the areas which they are not doing very well in their teaching practice.

Another way of improving motivation of VI learners in class activities is by involving them in class activities. Astin (1999) says that pupils who are involved in their learning process are likely to be motivated to learn. He further says that involvement is an active term that includes verbs like: attach one to, participate in, take an interest in, join in, engage in and take part in; such terms demand students to be active participants in the teaching and learning process. Motivation for learning results from understanding and integrating concepts and principles learnt in class in solving some of the compelling challenges in their daily life experiences (Dominguez, 1994). The role of the teacher is then to facilitate construction of useful knowledge that meets VI learner needs and not just to transmit what is known by the teacher. Although this aspect is difficult to be observed, it can be said that most teachers were seen doing some efforts to encourage the learning process of children with visual impairments in their classes. For example, although teacher B knew that it was difficult for a child who does not see to identify road signs, this did not stop her from ensuring that these VI children are well informed of the different road signs and why these signs are important. She asked questions to both sighted and VI pupils to explain or describe different signs. Astin (1999) further says that involvement can be referred to as the amount of the physical and psychological energy that the learner devotes into learning experiences. This was clearly evidenced when teacher B involved all learners in a signing a song in her introduction of the lesson. Children with visual impairments together with the sighted ones were seen signing with joy and energy. Another instance of learners positive energy was witnessed in teacher A class when the learners after finishing the first task that the teacher gave them, asked for the teacher to give them another task. This was an indication that the learners were enjoying the lesson and the task given. With reference to these two examples, I support what Astin (1999) said, that a visually impaired pupil who is motivated is likely to enjoy in participating in different learning activities, devote amount of time studying, and interact frequently with the teachers and other peers in the class.

Motivation of children with visual impairments can also be facilitated if the teachers look at and acknowledge a visually impaired pupil as a person or a subject in the class settings. One of the interesting things that came up from the teachers during the interviews I had with them was the fact that they expressed the need to consider every VI pupil as a person just as all other children in the classroom. Malawi is one of the countries where for a long time the cause of disability, including visual impairment, has been wrongly perceived as a curse, evil did, sin or wrong doing of parents or other grand-parents, or as a result of other spiritual force. Because of this some parents feel ashamed of their VI children and hide them to avoid being teased by others in the community. Until recently,

children who are visually impaired have been looked at with shame and negativity. This negative attitude towards people with all forms of disabilities is being discouraged, and it is a great thing that teachers are in the forefront in the development of a positive view towards children with visual impairments. According to Hundeide (2003) it is important that the grownups look at every child as a person or as a subject with the same need for acknowledged in terms of being listened to, understood, accepted and confirmed. Bae (2006) has written in her article about why it is important to see every child as a subject. She says that children should be met according to their conditions, and that the grownups should be willing to listen to the children and learn to interact and adjust themselves. As Lund (2004) says, teachers should remember that every child needs to be seen in spite of their individual differences, in spite of whether one is sighted or visually impaired. An important aspect here is to see these VI children in a way that will give them a good experience that they are valued in the class just as any other child. Maybe some people may question that how can one make a VI child know that the teacher has seen her or him since the child cannot see, or has difficulties seeing? Lund (2004) provides an answer when she says that seeing the child is concerned with showing the child that as a teacher you really care for him or her. There are many ways of seeing a child which does not need a child to have sight in order to feel seen. The teacher can see a VI learner by saying "hie" each time the teacher meets the child, a peck on the shoulder, having a small talk with the child, positive humour, a smile or small laugh, giving positive comments to what a VI learner has achieved and many other small things which can make a child feel accepted and have a sense of belonging in the class. Teachers in my study displayed also some of these aspects (see picture 5 of a teacher interacting with a VI child), which gave an indication that they wanted their VI children to feel seen and acknowledged, for example; teachers A,B and C when calling the VI pupils, they used their names indicated that the teachers acknowledged the presence of the VI child in the class. Just by remembering the name of the VI child among 90 pupils names in the class showed that the teacher made some efforts and really care for the child. I experienced a situation where teacher A gave positive comments on one of the VI learner's excellent work, by asking the VI child to stand and asked the whole class to clap hands for the child. Teacher A explained later during the interviews that at this school, clapping hands whenever a child has gone a question correct signifies praise and encouragement to the child to keep it up. It is with the use of such small actions which can result into making a VI child feel seen or noticed, accepted, and valued among the peers in the class. Lund (2004) says that sometimes a teacher might experience that her or his efforts are not being accepted by a VI child. In such situations it is important that the teacher does not give up. Keep on trying.

Motivation of children with visual impairment can also be facilitated through verbal praise or material rewards plus acknowledging their efforts displayed during the learning activities (Westwood, 2003). In classrooms with children who are visually impaired, regular teachers and sighted peers are directly responsible for the provision of such positive feedbacks since they are often closer to VI pupils in the school. A child with visual impairment, who is regularly rewarded for whatever little positive attempt she or he makes, may eventually rediscover his or her esteem and become a full participant in various activities which take place in the class. In relation to the findings of this study, many teachers were observed giving verbal praise to children with visual impairments whenever those children have answered the question correctly or when they have performed a certain action rightly. Although I did not observe any material reward, teachers A, B, and C actively praised the VI pupils and sighted pupils alike. Teacher A for example told his class that he will write an “excellent” in the notebook of the child who will manage to get the task correct. Apart from that, Teacher A was also heard giving positive comments to the work of children with visual impairment as he went around the class marking the pupils work. Teacher C also praised and encouraged all the learners including those with visual impairment to work hard in the task. She told the class that the pupils who will get the task correct will be allowed to go out for a break earlier, a thing which excited most learners, also with visual impairments in the class. Among the learners who got the task correct, were four out of five VI learners, and were allowed to go for break earlier, leaving some sighted children still in the class.

Mitchell (2008) points out that a teacher can also motivate learners by focusing on their strength rather than on weaknesses. Every child including those with visual impairments has something worthy noticing and acknowledging. It is common for teachers to get so caught up with a child's challenges that they lose sight of the many things that a child is able to do. Successful learning and growth requires utilizing strengths to help overcome areas of weakness. Therefore, it is important to reflect on the strengths of VI children, and not merely emphasize on their challenges. VI learners can also be motivated if the teachers see their differences as opportunities for learning. The core of inclusive education is to make all children learn and feel belongingness in the environment of their communities, schools and classrooms. To make this possible it requires a philosophy where diversity is valued, and according to Stainback, Stainback, (1992) a diversity that strengthens the group of pupils in a class, and offer all of its participants improved potential for learning (Stainback and Stainback, 1992). These shared benefits is referred to by Befring as the *Enrichment Perspective*, and is described in the same line, pointing out “*when a school, community, or a society adapts and is*

*responsive to the needs and distinctive features of people with differing needs and abilities, for example, disabilities, it enriches everyone, pupils and educators alike”*(Befring, 2001:52). Those who do not fit into existing arrangements can be seen as offering ‘surprises’ and this implies a need for more positive view on differences. In this research, it is difficult to conclude that teacher valued the diversity of learners in their classrooms or to say that teachers did not value the diversity of learners since there were no clear instances displayed that would suggest so. However, it must be said that most teachers showed and expressed that they cared for the children who were visually impaired in their classrooms and tried to treat all the pupils in the best way they could.

### **5.1.3 Communication between teachers and VI learners in the class**

Cultivation of good class communication skills is in itself an important factor in relation to pupils with visual impairment. By nature of their disability, most pupils with visual impairment may have communication disorders. The disorders might have emanated from poor or lack of visual communication during development. Vygotsky (1978) propounded the view that during child development, communication is important; it develops the child into a social being and creates foundations for mental development. It is therefore important for the teachers to have an understanding on the need and value of interaction, communication and dialogue in their classrooms. In order to encourage communication, findings from this study showed that some teachers adapted their language of instruction from the official English Language to Vernacular language in order to help all learners access instruction being delivered and also express themselves fully. With reference to the way teacher A,B and C taught, teacher A taught all the pupils in a language that pupils understand best, that is their mother tongue language known as tumbuka, mixing with the national language called chichewa, and a bit of english. Both VI pupils and sighted pupils taught in this lesson benefited from the adaptation of simplifying the language of instruction as pupils were seen to participate actively, showing full understanding of the instructions through familiar languages. Teacher B also mixed the instructional language between the national language Chichewa and English. She was observed switching to Chichewa whenever she was stressing an important point. Eggleston (1992) supports such an action saying that the language of the class should be understood by everybody to help pupils to acquire extended vocabulary. All people have the right to express themselves and create their own work in a language of their own choice and particularly in their mother tongue (UNESCO 2005). Switching the language of instruction from English to mother tongue enhanced improved communication between the teachers and the students and reduced communication breakdown. By learning in vernacular, both VI pupils and sighted pupils found it

easy to express themselves without restriction and with clear meaning. Grøtan (2005) agrees to this fact by saying the use of vernacular may benefit the learner, as the use of the mother tongue would always be the best way to express oneself. It can be very difficult to make one's views heard clearly, if he or she cannot communicate properly in a language that he or she is using. Communication challenges and dilemma were noticed in Teacher C class who taught the full mathematics lesson in English. Pupils could be seen that they had problems understanding the teacher and it was also difficult for the pupils to express their views in English, as a result, when the teacher asked questions, most of the pupils, also VI pupils, kept quiet and acted as though they did not know the answer. Using a foreign language might make a teacher to teach in an unnatural way, and even boring, with less practical examples. Therefore the best way would be to teach the pupils in a language which they understand like the way teacher A and B did.

Roggoff (1990) like many other proponents of quality early socialization postulated the view that mutuality and understanding between social partners is fundamental. Rye (2001) remarked that the communication that goes between the caregiver and the child in the child's development creates the foundation of all mental development. Nobody can deny the fact that one's ability to communicate gives him or her a better chance to express oneself, to reason, and to solve problems amicably. Teachers should motivate VI children to take part in dialogues in the class in connection with concepts being taught so that they become personally involved. It is therefore helpful for the teacher to initiate communication between teacher and VI children or among children themselves in the class, as some teachers were seen to do in this study. In the lesson by teacher A, VI learners were observed being encouraged to be sociable by talking to fellow pupils both sighted and visually impaired in the class, asking questions to the teacher and also answering questions asked in the class. In his lesson, teacher A was heard several times asking VI children if they had any problem. Children with visual impairments were also encouraged to take part in answering questions in the class. Accompanied by a warm and friendliness of the teacher to the children, all learners, and more especially learners with visual impairments were seen to display a free spirit in talking to the teacher and also to sighted children in the class. The relationship that existed between the teacher and the VI learners felt to be good, and not characterized by fear. In teacher C class on the other hand, most VI children were seen sitting quietly, without talking to fellow pupils or to the teacher throughout the lesson, and the teacher did not do anything to encourage these children to speak up, or to ask questions where they did not understand. Most of the times when teacher C asked a question to the class, children with visual impairments did not raise their hands to show that they knew the answer and wanted to

respond. The teacher did not even ask or encourage these VI children to try and answer the question and express their thoughts. Such situations limit the affected VI individuals to participate in functional communication within the class settings. Mercer and Mercer (1998) argued that the lack of good communication skills as well as speech gives great limitation to very important components of one's thought expressions. Given such a scenario, it then follows that regular teachers need to possess good repertoires of varied teaching methods and to ensure that they create learning, social and interactive environment since learning is embedded within the social events and occurs as the individual interacts with people, objects and events in the environment (Handleman & Harris 1986).

Apart from adapting the language of instruction, the way the classrooms have been physically arranged may also affect communication of VI children in the class. Smith (2006) emphasizes the point that the way the physical arrangement of the classroom can either promote or hinder communication of teachers with their learners. It is therefore important that primary classroom teachers create and organize learning environment that promote pupils motivation and communication as well as prevent and respond to learners challenging behaviours. Caine and Caine (1991) indicated that the environment could influence learning in that a learning environment that is well appealing and that changes periodically can invite enthusiasm for the learner. In addition, Savage (1999) says that the classroom environment acts as a symbol to pupils and others regarding teachers' value in learning. Therefore if a classroom lacks proper organization to support the type of schedule and activities a teacher has planned, it can impede the functioning of the day as well as limit what and how VI pupils learn. Findings from this research show that the physical classroom arrangement in all of the classes observed was almost the same. All children, including those with visual impairments, were put in tight rows, all facing the teacher in front of the class. Looking at this kind of sitting arrangement, it can be said that the arrangement was not in a position good enough to provide for a differentiated type of instructional arrangements effective enough for the VI learners to communicate actively with fellow pupils in the class since this arrangement limit contact among the learners. It was also observed that the class rooms were small in relation to the number of pupils accommodated per class, resulting to limitation in freedom of movement by both sighted and VI pupils and their teachers during class activities. Although teachers made an effort to arrange the desks in rows in order to allow space for movement within the class, it was still difficult to create enough space that could allow children with visual impairments to move freely and safely within the classroom, as a result most of the VI children in most classes were seen sitting fixed at a particular position throughout the lesson. The situation was the same in teachers A, B and C. In the interviews,

Teachers A and C explained that although they were not comfortable with the current classroom arrangement, there was very little they could do about this problem because the problem of poor classroom arrangement was caused by having small classroom space in relation to large number of pupils in each class, thereby making a rearrange of the classroom in a way that can encourage interaction among VI pupils with their sighted peers to be impossible.

Related to the issue of classroom arrangement, is also an issue of sitting position of children with visual impairment in the class. In this research, the average number of learners per class was found to be over 80 learners, and these large numbers has effect on where VI learners should sit in order to learn efficiently. Cole et al (2005) say that the position a child sits in class is critical to their ability to access the information the teacher present particularly at a distance. In relation to children with visual impairments, a child's position in class may depend on several considerations relating to a child's particular visual difficulty. This relates very well to what the teachers in my study said they considered in relation to the sitting positions of VI learners in their classrooms. VI learners were seen sitting in the front rows or front lines of the classes so that, as explained by teacher B, "*the children with low vision can see the board work easily, see occasions when I am demonstrating experiments and see the pictures or objects which I sometimes bring to use as illustrations*". Apart from giving them a good sight of the board and anything else that the teacher may be showing to the class, this position was also meant to give children with low vision an easy access to the teacher and vice-versa if the child needed any individual help. From the class observations, teacher A and B were seen going to children with visual impairments to explain things and to ask if they had any problems reading what was been written on the board. Apart from sitting in front rows, children with low vision were positioned to sit near the window in order to improve light condition, since the classrooms did not have electricity. Learners who were totally blind were also placed in front rows so that they can hear the teacher clearly, talk to the teacher, and get easiest access to all concrete materials that the teacher brought and used in the delivering of the lessons. In other words, teachers at this school ensured that VI learners sat at a position that will give them easiest access to all the visual information, concrete materials and also enable them to communicate with the teacher in the course of learning. It may seem obvious that a visually impaired pupil should sit at the front of the class but this does not necessarily happen automatically. It is the duty of the regular teacher to ensure that this is done.

#### **5.1.4 Simplification and sequencing of the content**

Regarding the considerations to simplify the VI pupils' learning content to their level of operation, findings of this study showed that teacher A made simplification of his content a basic consideration



for all learners in his class unlike teacher B and C. This is related to recommendation made by Johnsen (2001) that teachers need to ensure that the content for the learners need to be at their level of operation. Teacher A taught from the very basic level of the concept of addition and built up the concepts depending on the understanding and progress of the pupils he taught. It was noted that when the teachers simplified the learning content for the pupils, the VI pupils did not struggle to learn. VI pupils were observed answering the questions and manage to do the tasks assigned correctly. Teacher A also simplified the learning tasks for his pupils by breaking up the lesson activities into smaller units. There are several reasons for breaking up lesson activities into smaller units. Studies within the classroom management tradition show that this is a way for teachers to deal with pupils' energy (Fenwick 1996). Pupils become unfocused and unruly when they have to keep at the same activity for a long period of time, and to avoid this, the teacher needs to break up the activities into smaller units. Teacher A appeared to reflect in the same way when he in the follow up interview said: *There are so many kids in this class that cannot remain focused for a long time.*

#### **5.1.5 Step by step guidance of the VI learners**

It emerged from the study that some teachers considered using the step by step guidance method in teaching their students. Teachers A and B used clearly a step by step guidance not only to children who were visually impaired, but to all the pupils in their classrooms, while teacher C on the other hand did not show much indication of guiding the pupils. According to Roggoff (1990), teachers can guide the child's involvement in learning through joint participation. When a teacher and a VI child work together on a task the child may find it easy to understand and build for himself or herself positive self-esteem when he or she experiences success in performing tasks. Rogoff (1990) also pointed out that adult involvement can motivate the learner towards a goal and can focus their attention together. By working together chances of repeated failure are minimized. For young VI children, participation creates a better mastery of concepts than when they only hear as they can easily forget (Westwood 1997). Teacher A guided all the pupils step by step until the pupil could find the final solution by themselves. While guiding the learners, the teacher was also seen explaining the reason for and the significance of each advance so that the children should correctly follow the steps in the proper sequence and include all steps.

#### **5.1.6 Concretisation of lessons for VI learners**

Most pupils with visual impairments have difficulties in mastering abstract concepts (Handleman & Harris 1986). Mercer and Mercer (1998) add by saying that many pupils with visual impairments do

not comprehend abstract concepts well. Concretisation of lessons for VI learners in regular primary schools is essential to achieve quality education (Nsapato, 2005), since the teaching and learning materials or objects provide opportunities for VI learners to have equal access of information as sighted learners in the classroom (Sheppard and Aldrich, 2001). Gross (2003) advises also the use of visual and concrete aids such as real objects, charts, diagrams, tapes, video, pictures signs and symbols to facilitate learning. However, as explained in the results chapter, it was found out that most teachers did not use concrete materials in their lessons. Instead most of them just referred to the materials in absentia. For example in a lesson by teacher B on road signs and their importance, the teacher taught the whole lesson without a single concrete sign even though there are so many signs in the local environment which this teacher could have used to make the lesson more relevant and interesting. She only used illustrations which were in the pupils work book. The same thing was observed in the mathematics lessons by teachers A and C. Teachers constantly referred to the objects in absentia, showing that they knew the need to concretize the teaching. Lack of advance preparation could therefore be used to explain the reason for the teachers' failure to use concrete teaching aids rather than unwillingness or incompetence. This finding is also in line with a previous research done by Mutasa (1999) in Zimbabwe who found similar results that most teachers know the importance of concretizing their lessons in relation to children who are visually impaired, and yet they do not implement the use of concrete materials in their lessons. Relating concretization of teaching to Cole's theory, he discovered that when individuals solve problems with the help of some tools, the individual finds it easy to do the activity. Cole (1996) discovered that chimpanzees used tools as a significant part of their life. The tools were used for subsistence living for example, fishing out termites with a stick, using chewed leaves to sponge out water, using stones to crack nuts etc. The use of such tools become part of life for an individual as it assists individuals in their day-to-day living. This then explains the importance of concretization in teaching, that the use of tools or concrete materials has the capacity to improve problem-solving skills in VI pupils learning.

Current trends in technology have made learning opportunities for the visually impaired even more convenient. Hopefully this trend will continue and the technology will continue to improve and come down in cost so that every child with a visual impairment will be provided with every opportunity to succeed in school. Provision of radio cassette recorders, texts with speech- supported computer access enhances teaching and learning of VI students (Law, 2006; University of Strathclyde, 2005; Gross, 2003; Blind Aid Africa, 2007). The teacher can ensure that visually impaired child should have access to a tape recorder. In this way, the child can record classroom discussions and transpose

his or her notes into braille later on. In relation to this study, not a single VI child was seen using a tape recorder in the classroom lessons. Teacher B explained that there was just one tape recorder for all 46 VI children at this school, plus the fact that classrooms do not have electricity. As a result most of the VI children rely on taking notes in classrooms as the lesson is in progress. One specialist teacher explained also that the school did not have enough computers to cater for all VI children because they are very expensive. This finding corresponds to the findings by Torch Trust (2004) which noted that for countries like Malawi, adaptable computers and tape recorders are expensive, need electricity and difficult to repair in regular primary schools. Thus specialized teaching and learning materials for VI learners are expensive, and inadequate funding is a major factor in procurement of materials.

### **5.1.7 Instructional methods used by regular teachers during lesson**

The problem of instructional methods is the problem of how to teach and learn. Lompscher (1999) says that the problem of methods is an old problem studied and treated using different terms such as strategies, procedures, techniques, skills, plans etc. Visually impaired children in general, need specific instruction in order to function in and out of school. In terms of the instructional methods and techniques, the special needs of children who are visually impaired can be met with certain interventions specifically created for visually impaired students. Croft (2000) found that classroom teachers in Malawi have various strategies to respond to pupil diversity in overcrowded classrooms such as use of oral culture to encourage inclusive participation. The fact that most teachers in this study did not use a variety of instructional strategies could have numerous implications. Some of the possible explanation to this can be lack of competence by the teacher in employing other methods of teaching; lack of time for preparation since some methods like discussion method requires a teacher to prepare in advance what the learners are going to discuss, how the learners are going to be organized or arranged etc. With reference to teacher A, B and C lessons, teacher A used a question and answer method while teacher B and C used a lecturing method. In relation to the question and answer method, Chapman and Stone (1988) emphasize that questioning is instrumental to assist the pupils with visual impairment to understand concepts in the teaching and learning process. By the use of questions to obtain answers a teacher is able to evaluate each of the VI learners as to their individual knowledge of the subject and can use the information to identify the VI pupils that need improvement in the class. Questions can also be used to increase VI pupils' participation by encouraging them to both answer and ask questions as was observed in teacher A class. Allowing VI

pupils to ask and answer questions would therefore improve their speaking skills, listening skills, and help them to organize their thoughts.

Teachers B and C on the other hand used lecturing method in their lesson delivery. However, presenting a lecture without pausing for interaction with pupils can be ineffective regardless of your skill as a teacher. That is why both teacher B and C paused here and there to ask learners question, put in examples to learners, follow on a child`s progress, offer assistance and many other small things. The use of pauses during the lecture for direct oral questioning creates interaction between teacher and pupils. Unfortunately, when classes are large like it was in these lessons, the teacher although they tried, were not able to interact with all pupils on each point. The learning effectiveness of the lecture method can therefore be questioned because of the lack of interaction. Teacher B supplemented her lesson by emphasizing the important points by the use of gestures, repetition, and variation in voice inflection as reflected in her lesson. She was seen checking now and then on the progress of VI learners in the lesson by questioning them and also going on the VI desks to see what the children were writing. She further explained during the interview as to why she went around checking on the VI learners work progress by saying that some VI pupils when in doubt or confused often hesitate to make their difficulty known in the class. There can be several reasons why these learners hesitate. Some of the reasons can be because of natural timidity, or because of fear of being classified as stupid, or even failure to understand the subject matter well enough to explain where their difficulty lies. The teacher should therefore be clever to frequently ask if the class, and VI child in particular has any questions, thus giving the VI pupils an opportunity to express any doubts or misunderstandings on their part. Some teachers make the mistake of waiting until the end of the lesson to ask questions. This was observed in teacher C lesson. When she at the end of the lesson asked if any child had a question or any problem, all learners replied in a chorus that there was no problem. The best time to clear away mental fog is when the fog develops. Mental fog tends to create a mental block that prevents the pupil from concentrating on the subject matter

Although most teachers did not use group discussion methods, this method is considered to be more effective in getting the pupils to think constructively while interacting with the rest of the group, also an important aspect of the socio-cultural theories. Arter (1997) supports the use of discussion method in relation to children who are visually impaired by saying that conducting classroom activities that involve group discussions promotes the level of understanding concepts and ideas to learners with visual impairment. A true class discussion requires a pupil-to-pupil interchange of

ideas, which relate very well to the socio-cultural theory that recognises the significance of other peers towards child's learning. Peer work increases social competences, interaction and establishment of peer relationships in the classroom, which most of the times children with visual impairments lack. Westwood (1997) argued that social interaction is important particularly for children with disabilities who are low in self-esteem and confidence and that children who play and work together shun peer rejection; teasing, ridicule or avoiding other peers with disabilities. In order to increase interaction between children with visual impairments and the sighted children teachers A, B and C in this study explained that they place children who are visually impaired to sit next to a clever, fast learner child so that they can help each other in activities like in taking notes, reading texts and explaining to each other concepts which they find challenging. McCoy (1995) described such a scenario whereby pupils can help each other to learn as peer tutoring. Peer tutoring can be very beneficial to both the tutor and the tutee. Where a VI child has problem, sighted peers can quickly notice and help. The one who helps, automatically benefits by further strengthening his or her understanding of the concept too. McCoy (1995) termed this dual benefit as both helping the tutee to acquire new skills or information and providing the tutor with extra practice in an acquired skill to increase fluency. Therefore it is important that teachers also encourage a child-to-child learning approach in their classrooms.

### ***5.1.8 Individualization of instruction.***

It is important to consider that diversity prevails in pupils, learners are different and thus they display differences in abilities, experiences, learning styles, needs as well as in their interests (Dickinson and Wright, 1993). In scenarios where a class is composed of pupils with differentiated disabilities and learning needs as the ones that were in focus in this study, teaching the pupils as individuals need to be made a priority. Individualizing the instruction in this case was seen in terms of providing a one-on-one instructional support done within the classroom setting. Across the classes that were observed, findings showed that in their teachings, most teachers directed their instruction to the whole class, and not to particular VI individuals. Just in a few instances where teachers seen directing their instruction to individual children with visual impairments within the classroom. Teachers A and B were seen several times trying helping individual VI children in their instruction unlike teacher C who completely directed her teaching to the whole class. The question now is how does one account for the variation in teachers' provision of individualized instruction? Several reasons can be highlighted. One of the reasons could be due to large number of children in the class. Dickinson and Wright (1993) supports this by saying that in circumstances where the teacher is faced with large groups of pupils it can be difficult to individualize the instruction. Previous research by

Cardona (2002) stressed the need for class sizes to be small to allow teachers to focus more attention on those who need help, and in this case focus on children with visual impairments. Walker & Walker (1991) supports this by saying that manageable class sizes allow for more individualized attention for pupils especially when working with pupils with disabilities. However a challenge which arises here is what is the recommended number of learners per class? This is an issue that needs to be looked into, although not in this paper. It should be pointed out that teachers at this school had large groups of pupils to attend to, making it difficult to provide individual instruction to over 80 pupils within a lesson lasting 40 minutes. The other reason for failure to individualize the instruction can be attributed to lack of will and effort by the regular teacher. Individualization of the teaching requires effort and adjustment in teacher planning. Extra work for the teachers might not be welcome by many teachers and so this could also have contributed to failure to individualize the VI children's learning in such classrooms. Thus teachers need to observe their VI pupils as well as sighted ones in order to find out if any child is having problems during the lesson delivery. In a case where a child is showing some difficulties, the teacher can provide an individual help just as the mother chimpanzee did in Cole's theory, and also just as teacher A and B were seen to do. Thus, by giving learners tasks which were a bit difficult can be related to the Zone of proximal development which lies just beyond what the child can do alone.

#### ***5.1.9 Lesson assessment in relation to children with visual impairments in ordinary classes***

Although educators contend that assessment is the backbone of educational programming and a necessary tool in planning individualized instruction, assessment is useful only if it yields meaningful measurements (Genshaft, Dare, & O'Malley, 1980). Results from this research indicate that all pupils were assessed in the same way, and performed the same tasks regardless of being visually impaired or sighted. Teachers explained that in these assessment tasks, children with visual impairments are considered by modifying their examination or test papers to suit their condition, and also by giving them extra time in order to allow them to finish the paper. This finding is supported by what Chapman and Stone (1988) say that even though VI learners take examinations alongside sighted peers, they need modified testing materials and additional time to handle and explore them due to the type of thinking involved during assessment. Teacher C expressed that in a test where a child is required to identify a picture, or questions which require the child to label a part, or even draw, it becomes a duty of a regular teacher to seek help and work hand in hand with the specialist teacher on how to reformulate the question so that it does not lose its meaning and at the same time make it more appropriate for the child to achieve the goal. In relation to this point, Bolt and Thurlow (2004)

explain that tests that have been transcribed into braille must reflect an equal level of difficulty and synonymous constructs as the original test items. Similarly, large-print accommodations must be adapted with exact representations of the constructs. Teachers also explained in this study that the pupil's performance is ranked using scores from midterm tests or end of term test that all learners both sighted and those with visual impairment undergo. This kind of criteria for assessing pupils performance, where classroom progress is conducted by ranking learners performance using tests scores, does not recognise the effort made by learners for a longer period of learning, but makes what Chapman and Stone, (1988) considered as "judgements" from the pupils paper work done within a period of hours throughout an exam or test. USAID-Malawi (2003) further says that it is essential that assessment of class progress by class teachers should aim at testing the pupils' application of knowledge and not recalling of facts. This suggests for flexibility of academic progress assessment approaches in the classroom to accommodate needs of VI students and avoid penalizing them due to their loss of vision (Chapman and Stone, 1988).

After assessment there is need for the teacher to give feedback to all learners, and more especially the VI learners. Schloss & Smith (1994) say that feedback is the provision of evaluative information to an individual with the aim of either maintaining present behavior or improving future behavior. Couch and Magrega (1992) defined feedback as a procedure that provides information about an individual's behavior shortly after that behavior has been performed. Therefore, feedback is the procedure that provides information about the emitted behavior, leading to the modification or maintenance of that behavior. It was observed that all teachers that were observed showed to be very good in providing feedback in relation to children answers to oral questions asked in class. Teacher A, B and C, for example were heard using comments like; "that`s correct", "that is a very good answer" etc, when a VI child and others has answered the question well. Disapprovals were also given answers which were not correct. But in terms of commenting or giving feedback on the pupils` home work or written task, most teachers did not do it. Most teachers were seen distributing back learners work-books without saying a thing on the learners' specific or general performance of the homework. Only a few teachers, such as teacher A, on the other hand, commented in general how learners had performed in the home work that was given. According to Cartledge and Milburn (1986), feedback is critical to social development because after a VI child receives information about his or her performance, he or she can make the necessary modifications to improve his or her social skills. It seems, then, that to modify some social skills, children who are visually impaired need feedback from the external environment, along with self-evaluation. Meaningful feedback is therefore important, not only for social interaction, but for accurate self-evaluation by individuals

who are visually impaired. The necessity of feedback brings to light the responsibility of the significant others in the class to provide it in a way that is appropriate and meaningful to the children. Jindal and Snape (2004) write that it has been observed that the significant other, in this case the regular teacher, often fails to give feedback, and even when they do, it is not meaningful or understandable to an individual who is visually impaired. For example, in the lesson taught by teacher C, she was observed several times nodding her heads in reply to a child's question or gesturing. By nodding one's head, it does not send any message to a child who does not see, as a result this can confuse a child and leave him or her in a state where he or she does not know whether the answer given is true or false. Because of the lack of meaningful feedback, visually impaired children may also find it difficult to comprehend a conversation and at times, may stop conversing in the class. Hence, the inadequate conversational skills of others may indirectly influence the conversation skills and, what is more important, the social interaction of individuals who are visually impaired. In summary, teaching in heterogeneous classes is no doubt challenging. Regular teachers are often confronted with the question of how to deal with and instruct children who are visually impaired despite not having training in how to handle such children in ordinary classes.

## **5.2 CONCLUSION**

As a way of concluding the discussions, a very brief evaluation of the results in relation to the inclusion aspects of participation, fellowship, democracy and benefit of children with visual impairments will be done. The main reason I have done this is to exam in a general perspective the extent of inclusion practices in the classes where regular teachers were observed teaching.

### **5.2.1 Fellowship**

Fellowship in case of this paper was seen as the extent that the children were together in a unifying and common classroom. The focus here was to look at what was going on in the class with consequences for fellowship of children with visual impairment with their teachers and sighted peers. By looking at how the learning of visually impaired children is arranged at this school, the majority of VI pupils learn together with the sighted pupils. Starting with VI pupils in classes 1&2, letting them learn in their own special class, outside the fellowship of sighted learner could, to a certain extent, be considered as excluding them from fellowship. Teachers gave reasons as to why class 1 & 2 VI learners had to learn in their own class. One of the reasons included that these children needed more time to be trained how to write or read in braille and other basic skills before they can be integrated into the ordinary classes. This arrangement reflects that the teachers put much emphasis on



substantial rather than on social aspect of VI children. For VI children in classes 3 to 8, they learned together with sighted peers in the ordinary classrooms. It is however important to remember that just putting VI children in ordinary classes cannot be equitable to be inclusion unless if other factors, such as how VI children take part in the class activities, if democratic principles are being practices in the class and if they too benefit from the lesson as much as all other children. Therefore having VI children at this school learning together in one class is no automatic guarantee to conclude that all the children were included to be a part of the class fellowship.

### **5.2.2 Participation of VI learners**

To participate in this case means to be able to take part in the teaching and learning process within the fellowship in the school and class, and to be engaged in the learning content and learning process that go on. As shown in this study, teaching in many classrooms was strongly collective oriented with the constructed normal child as receiver, with relatively few modifications in relation to children with visual impairments. From this research, the possibilities for VI pupils' participation varied a lot within and across classes dependent upon how the teachings were organized and practiced. On one hand, there were teachers, like teacher A and B, who really showed effort in facilitation that VI learners participated and contributed in the learning process. These teachers adapted their language, mediated their instruction, provided guidance, simplified the content and provided motivation to VI pupils. On the other hand, are factors which hindered VI children from participating actively as seen from the sitting arranged of learners which left children fixed at one place throughout the lessons, lack of adaptation of the language of instruction by some teachers which left some VI learners passive, failure to differentiate the instructional methods supplemented by lack of concretization of the lessons contribute to the lack of active participation of children with visual impairments in most classes. Therefore, it can be concluded that basing on the aspect of participation of VI children at this school, lack of VI pupils participation out-weights the presence of it. It should also be pointed out that the social life and social processes seemed not to be given high priority as compared to the classroom subject learning which was emphasized.

### **5.2.3 Democracy**

Here the democracy aspects are primarily seen in relation to giving all children equal value to speak and be heard in the classroom. Democracy is also in this case seen from the school's own democratic practice, that parents and children should have an easy access and discuss to all relevant information about their own situation in school. From the study, it was found out that the relationship between

teachers and parents of VI children was almost non existence, indicating that there was lack of information flow from and to both parties. In relation to VI children in lesson planning, teachers expressed that they are no individual teaching plans for individual VI children, which shows that the individual need of most learners are not adequately addressed or met during lesson deliveries by teachers. In addition to this there was no indication of children's involvement during the planning of the lesson, meaning that children's ideas or views were not represented in the formation of teaching/learning plans at this school. The aspect which shows a bit of democracy practice to VI children is the fact that most teachers allowed and encouraged their VI children to answer questions, comment and also express their views in the classrooms. Therefore, the aspect of democracy can be concluded to be lacking in teachers practices at this school.

#### **5.2.4 Benefit**

Benefit is about result of what comes out of fellowship, participation and democratization, both socially and substantially. On the benefit part, it is difficult to clearly state whether VI pupils at this school benefited or did not benefit from learning in the ordinary classes. However, by basing on the observation of the lessons, it can be registered that there were great variations, for example, some VI children displayed a great mastery of the tasks given in their classes, while others were seen to be struggling. There was also variation in benefit in relation to social benefits and substantial benefit by VI learners both within classes as well as between different class levels since, as already said, emphasis on substantial well being was higher than the emphasis on the social well-being.

In a summary, it can be concluded that even though inclusion of children with visual impairment is seen as a good and positive idea which is being promoted at this school by allowing these children to learn together with sighted peers in ordinary classes, the results of teachers practices in these classrooms are not in accordance with the achievement of the idea. What was observed and experiences at this school was more of integration of children with visual impairments unlike inclusion of these learners. Therefore it is of utmost importance to emphasize that a further implementation of inclusion at this school with focus on how the classes are organized and functions is necessary. There is much to be done if we are to assure all visually impaired children their right to education. This includes personal commitment from every educator and parent.

## CHAPTER 6. CONCLUSION AND RECOMMENDATIONS FOR FURTHER RESEARCH.

Malawi started integrating students with visual impairment together with their sighted peers in primary schools as early as 1980. The idea of integrating sighted and visually impaired students was as part of the implementation of the Free Primary Education and Education for All policy by the Malawi Constitution in 1994. However introduction of Free Primary Education resulted in enormous increase in enrolment of learners, both sighted as well as those with visual impairments. This increase in enrolments has added more pressure on the regular teachers, who combined with a lack of training on how to handle children with visual impairments, have to manage needs of the diverse learners in their classrooms. However, since the introduction of this idea, little research has been done to investigate how the regular teachers cope in such classrooms. It was therefore the major aim of this research to find out how teachers teach ordinary classrooms which have children who are visually impaired. The overall research question was: *How do teachers experience teaching children who are visually impaired in regular classroom settings?* In order to address the overall research question, there were three sub questions that were posed and these are: Which factors does a teacher take into consideration in preparation, implementation and evaluation of lessons in order to encourage and facilitate visual impaired children to participate actively in the learning activities? What are the challenges faced by teachers in their interaction with visual impaired children across different classroom activities? What are the teachers' recommendations to effectively deal with these challenges?

Two theories; didactic relation theory and socio-cultural theory, were chosen in order to shade more light on the teaching and learning process. These two theories were chosen because of their relevance to the aspects of teaching and learning which also applies in teaching children who are visually impaired in ordinary classrooms. Didactic relation theory was used to show aspects which teachers need to consider when planning, teaching and evaluating the lessons to which the teachers teaching practices in the field were compared to. Aspect of the Socio-cultural theory such as mediation, guided participation, socialization and dialogue, and concretization among others, inspired the researcher to use this theory as a measuring tool towards the teaching and learning observed in different classrooms. In relation to the methodology, a qualitative approach was chosen for the study. Within this research design, two methods of collecting data were chosen; qualitative observations and qualitative interviews. Tools which involved observation guide and semi-structured interview guide were also prepared with inspiration from the two theories presented above. A sample of 12 teachers was purposively chosen basing on the criterion that they taught classes with visual impaired children,

and also that they taught mathematics and expressive arts. The researcher also considered critically the issues of how to strengthen the validity and reliability of data, plus considered the ethical issues involved in researching. Interpretational analysis was used to analyze data collected. In interpretational analysis, categories or themes that were used to describe and explain the phenomenon being studied were constructed aiming at highlighting specific aspects of the data for easier interpretation. Therefore data collected was first summarized and organized in categories and subcategories derived from the collected data, which were later coded. The themes presented include; factors teachers consider when preparing and planning for the lessons, factors teachers consider when delivering the lesson, factors teachers consider when assessing their classroom lessons, lesson implementation, VI learners assessment, challenges teachers meet and their recommendations. Three lessons done by teacher A, B and C were used as comparative illustration of the results. Selected excerpts from the follow-up interviews were also used to give a clear picture of the results.

Results of this study in relation to factors teachers consider when preparing and planning for the lessons were that teachers consider VI learners as persons with needs just as any other children in the class. They also considered assessing the learning needs of the VI learners bearing in mind that every VI child has individual needs. In relation to making a lesson plan, the results show that teachers it is important to plan a lesson systematically and also think of time for preparation as a crucial factor. It was however observed that the learning environment at this school was not well enough to suit the needs of both sighted and visually impaired children. The sitting arrangement, whereby all learners sat in rows all facing the teacher in front of the class, did not allow VI pupils to have contact and communicate actively and freely with sighted peers in the same class. Classrooms were observed to be small in relation to high numbers of learners that each class accommodated; as a result there was not enough space for VI pupils to walk around the class freely and safely. Furniture such as desks and chairs were not enough, and in terms of classroom displays, there were displays only in prints and not in braille. Teachers however, ensured that VI pupils were positioned in front rows of the class in order to enable them to have easy access to the teacher and the concrete materials that the teachers used as teaching aids and illustrations in their lesson delivery.

Results shows that factors which teachers consider when delivering the lesson were; Talking to VI pupils and checking if they follow and understand the teacher, providing appropriate compensatory activities, being reasonable in the visual demands the teacher is making on VI pupils and also giving graded support to VI learners. In relation to assessing their classroom lessons teachers considers the importance to constantly ask oneself whether children with visual impairment have understood the

teaching content of the lesson. Teachers expressed that they also consider how to use a variety of assessment formats in relation to children who are visually challenged. Another important factor teachers consider is to reflect on the whole teaching and learning process by asking themselves if they would like to be in one of their own lesson if they were to be visually impaired. Teachers emphasized also the need for safety precautions at all times and in all places since VI learners have a problem noticing and avoiding obstacles that might hurt them.

In relation to lesson implementation, the findings of this study show that there are a lot of factors that regular teachers consider and employ when they are teaching and assessing classes with visually impaired pupils in order for the VI pupils to participate actively and benefit from the lessons at this school. Starting from the lesson introduction, efforts were shown by most teachers to introduce the lessons in a meaningful and interesting ways that stimulated VI children towards learning. The language of instruction was adapted to vernacular to ensure that VI learners access the information being presented and felt free to express their understanding and opinions without any language constraint. Although lack of variety in the use of instructional methods were observed and expressed by teachers, regular teachers still employed some strategies to spice up the lecturing method by asking oral questions and encouraging children with visual impairments to speak and express themselves, question and answer method was also used to deliver the lessons. These methods were supplemented by the use of mediation teaching were teachers identified and interposed their assistance to children with visual impairments who required extra help in performing the tasks given in the classroom. Some teachers used voice adaptation, physical prompts as well as verbal praise to motivate the VI learners participation in the lessons. The use of step by step guidance also proved to be of great help to children with visual impairments despite the fact that not all teachers provided this guidance. Again, despite lack of adequate teaching and learning materials, teachers gave an indication that they appreciated the importance of using concrete material in lesson deliveries by referring to different materials although in absentia, in order to help children with visual impairment learn effectively. It was also important that some of the teachers individualize the instruction in spite of the large numbers of learners in their classroom. Simplifying the content by breaking it into manageable units proved also to be of great significance in relation to children with visual impairment, which led to most VI children completing their tasks correctly. In relation to assessment of VI children's progress, it was found out that providing extra time during tests, modifying work to suit VI children and also providing VI learners with constructive and meaningful feedback were some of the factors found to be very important.

Challenges teachers meet and their recommendations include that regular teachers how to deal with and instruct children who are visually impaired despite not having training in how to handle such children in ordinary classes. Other challenges include; shortage of specialist teachers, large numbers of pupils per class, inflexible classroom environments, lack of teaching materials, and lack of collaboration between teachers and parents of VI pupils. However recommendations teachers gave focus on; providing training to regular teachers on issues concerning teaching children with visual impairment in ordinary classroom, provision of teaching and learning resources, creating a welcoming environment, encouraging child to child help, Involvement of parents of VI pupils in the school, and collaboration among teachers with different stake holders

### **6.1 Recommendation for further research**

1. It is especially important to determine how the teachers prepare and implement class activities in which children with visual impairments are engaged on a larger scale. Therefore a replication of this study with a sample from several schools is recommended to obtain a more balanced representation of respondents across the nation.
2. Since this study was only interested at looking at the regular teacher perspective, there is also a great need to find out how children with visual impairments are performing academically and socially in different primary schools in Malawi and how they look at the teaching and learning they receive in these ordinary classes.
3. Future research might consider acquiring more quantitative data, since little is known about the numbers of VI students enrolled in all primary schools, how long they remain in school, the statistics and reasons for drop out, conditions which support students to remain in school and indicators of success for integrating VI students and their sighted peers. It is also essential that regular teachers be quantitatively investigated to determine how they provide services and support to pupils with visual impairments in different primary schools. A quantitative project could be very useful, and provide us with further knowledge in this area.

## Literature list.

- Adami, A.F., (2004) "Enhancing students' learning through differentiated approaches to teaching and learning: a Maltese perspective," *Journal of Research in Special Educational Needs*, vol. 4, no. 2, pp. 91–97.
- Ainscow, M. (2006) "Towards a more inclusive education system: where next for special schools?" in *Included or Excluded? The challenge of the mainstream for some SEN children*. London: Routledge, Forthcoming
- Ainscow, M (1998) "Would it work in theory? Arguments for practitioner Research and Theorizing in the special Needs Fields," in *Theorizing Special Education*. London: Routledge.
- Arbeiter, S. & Hartley, S. (2002). "Teachers' and pupils' experiences of integrated education in Uganda". In *International Journal of Disability, Development and Education*, 49 (1) 61-78
- Arditi, A & Rosenthal, B (1998) "Developing an objective Definition of Visual Impairment", in *Vision '96: Proceedings of the international low vision conference 1996*, Book I, ONCE, Madrid, pp. 50-53.
- Arter, C., (1997). *The Primary School Child; Visual Impairment Access to Education for Children and Young people*. London: David Fulton Publishers.
- Astin, W.A. (1999). "Student involvement: A developmental theory for higher education", in *Journal of college student development*, 40 (5) 518-529.
- Bae, B. (2006) *Temahefte. Om barns medvirkning*. Oslo: Kunnskapsdepartementet
- Ballard, K. (1998) *Inclusive Education International Voices on Disability and Justice, Studies in Inclusive education*. London: Falmer Press.
- Befring, E (2001) "The Enrichment Perspective: A Special Educational Approach to an Inclusive School," in *Education- Special Needs Education: An Introduction*. Oslo: Unipub Forlag, pp. 49-64.
- Befring, E. and Tangen, R. (2008) *Spesial Pedagogikk*. Oslo: Cappelen Akademisk forlag
- Bell, J (2003) *Doing Your Research Project: A Guide for First-Time Researchers in Education and Social Science*, Maidenhead: Open University Press,
- Blind Aid Africa, (2007). *Providing tools for living and learning for blind young people in Africa: Letters from Africa* [Online]. Available from: <http://www.blindaid.org/pages/mailbox.php>. (Accessed on, 21st January, 2009).
- Bolt, S. E., & Thurlow, M. L. (2004). "Five of the Most Frequently Allowed Testing Accommodations in State Policy: Synthesis of Research." In *Remedial & Special Education*, 25(3) 141.
- Booth T. Ainscow, M., Black-Hawkins, K., Vaughan, M. AND Shaw, L. (2000). *Index for Inclusion: Developing learning and participation in schools*. Manchester: CSIE in collaboration with the Centre for Educational Needs.
- Booth, T. (2003), *Inclusion and exclusion in the city: Concept and context*. London: Routledge Falmer.
- Bos, C.S., and Vaughn, S. (1998) *Teaching students with learning and behavior problems*. London: Allyn and Bacon.

- Bråten, I. (red.) (2005): *Læring i sosialt, kognitivt og sosialt-kognitivt perspektiv*. Oslo: Cappelen Akademisk Forlag.
- Caine, RN & Caine, G (1991), "Making Connections: Teaching and the Human Brain", in *Journal of Special Needs Education*, vol 2, no. 1, pp. 24-47.
- Cardona, MC (2002). "Feasibility and effectiveness of teachers' instructional adaptations", *European Journal of Special Needs Education*, Vol. 18, No. 3, pp. 333-340.
- Carm, E. Mageli, E. Berryman, L.N. Smith, R (2003) *Education and its impact on poverty: An initial exploration of evidence*, Oslo University College: Centre for international education, HiO-report, no 9
- Cartledge, G., & Milburn, J.A. (1986). *Teaching social skills to children: Innovative approaches (2nd ed.)* Boston: Allyn and Bacon.
- Chapman, E.K. & Stone, J.M. (1988) *The visually Handicapped Child in your Classroom*. London: Cassell Educational Limited.
- Chigadula R.T. (1996) *Low Vision Rehabilitation: Malawi Model* [online] Available from: [http://books.google.co.uk/books?id=mve0LPp6\\_pUC&pg=PA578&lpg=PA578&dq=Education+for+the+Blind+in+Malawi&source=web&ots=qnlV\\_5ZT6o&sig=aW8Iah5yX2uCAxw6v4l7DOcUMQc&hl=en](http://books.google.co.uk/books?id=mve0LPp6_pUC&pg=PA578&lpg=PA578&dq=Education+for+the+Blind+in+Malawi&source=web&ots=qnlV_5ZT6o&sig=aW8Iah5yX2uCAxw6v4l7DOcUMQc&hl=en) (Accessed on 7<sup>th</sup> january, 2009).
- Chirambo M.C. & Benezra, D. (1976) "Causes of blindness among students in blind school Institutions in a developing country" in *British Journal of Ophthalmology* 6 (60), 665- 680
- Cole, M (1996). *Cultural Psychology: A Once and Future Discipline*, London: Harvard University Press,
- Collins, W. (2002) *Collins Paperback English Thesaurus*. Glasgow: Harper Collins Publishers,
- Couch RH, & Magrega D. (1992). Feedback: "A behavioral approach to adjustment services" in *Vocational Evaluation and Work Adjustment Bulletin* 25(3):89-92.
- Croft, A. (2000) *Free Primary Education in Malawi: How do lower Primary teachers respond to pupil diversity* [Online] Available from: [http://www.isec2000.org.uk/abstracts/papers\\_c/croft.htm](http://www.isec2000.org.uk/abstracts/papers_c/croft.htm) (Accessed on 13th march, 2009).
- D'Allura, T. (2002). "Enhancing the social interaction skills of preschoolers with visual impairments". In the *Journal of Visual Impairment and Blindness*, 96, 576-584.
- Dickinson, C & Wright, J (1993). *Differentiation. A Practical Handbook of Classroom Strategies: Crown National Clearing House on Education and Training for People with Disabilities*, NCET, Crown.
- Dijk, K. (1996) *The Impact of a Low Vision Programme on existing Education Services for the Blind in Malawi* [Online] Available from: <http://www.icevi.org/publications/icevix/wshops/0435.html> (Accessed on 14th, february, 2009).



DFID (2007) *The race to improve quality of primary education in Malawi, CASE STUDIES [Online]* Available from: <http://www.dfid.gov.uk/casestudies/files/africa/malawi-education.asp> [Accessed 12th April, 2009].

Dominguez, B. J. (1994). "One voice, three perspectives: Parent, administrator, student". *Journal of Visual Impairment & Blindness*, 88 (4), 294-295.

Genshaft, J.L., Dare, N.L. y O'Malley, P.L. (1980): "Assessing the Visually Impaired Child: A School Psychology View". *Journal of Visual Impairment and Blindness*, 74, 344-350.

Gilbert, C. E; Waddel, K; Wood , M & Foster , A.(1995) Causes of Childhood Blindness in East Africa, Results in 491 pupils attending 17 schools for the blind in Malawi, Kenya and Uganda. In *Ophthalmic Epidemiology* , 2 (2), 77- 84.

Gross, G. (2003) *Special Needs Education in the Primary school a practical guide*, Third edition, Berkshire: Open University Press.

Eggleston, J (1992) *The Challenge For teachers: Introduction to Education*. New York: Cassel

Fecho, B (1994) *Language Enquiry and Critical Pedagogy in Chartering Urban School Reform Reflecting Public High Schools in the Midst of Change*. New York: Cassel

Fenwick, T. (1996) *Managing space, energy, and self: Beyond classroom management with junior high school teachers*. Unpublished article. Canada: St.Francis Xavier University.

Feuerstein, R & Feuerstein, S (1991) *Mediated Learning Experience (MLE) Theoretical Psychological and Learning Implications*, London: Freund.

Firestone, W.A. (1993) Alternative arguments for generalizing from data as applied to qualitative research, in *Educational research*. 22(4) pg 22-23

Flem, A.and Keller, C. (2000) "Inclusion I Norway; A study of ideology in practice", in *European journal of Special Needs Education*., 15(2), 188-205.

Forster, E.M., & Holbrook, C. M. (2005) "Implications of paraprofessional support for students with visual impairments", *Harvard Educational Review* 36 (4) 155-163

Gall, MD, Gall, JP & Borg, WR (2003), *Educational Research: An Introduction*, 7<sup>th</sup> edn, Boston: Pearson Educational Incl.

Gall, MD, Gall, JP & Borg, WR (2007), *Educational Research: An Introduction*, 8<sup>th</sup> edn, Boston: Pearson Education Incl.

Gregory, RL (1991) "Seeing by Exploring," in *Virtual and Real Environments*, London: Tailor and Fancil

Grøtan, T. (2005) "Language-A Democratic Right," in *Global Knowledge: Research Across Academic Boundaries*, no. 4, pp. 2.

Halvorsen, K. (2003) *Å forske på samfunnet- en innføring I samfunnsvitenskapelig metode*. Oslo: J.W. Cappelen's Forlag as.'

- Handleman, JS & Harris, S.L (1986) *Educating the Developmentally Disabled: Meeting the Needs of Children and Families*. London: Tailor and Francis Ltd,
- Hardman, M.L. (1993) *Human Exceptionality*. London: Prentice Hall
- Haug, P. (2004) *Inclusion in Norwegian Compulsary Schools*. Volda University College: Paper presented at NERA, Ryekjavik, Island, March 11-13.
- Haug, P (1995) "Spesialpedagogiske utfordringer", In P. Haug (red) *Spesialpedagogiske utfordringer*. Oslo: Universitetsforlaget
- Haug, P. (2006) *Understanding Inclusion in Education. The example of Norway*. Volda University College
- Huberman, A.M, Miles, M (2002) *The qualitative researcher`s companion*. London: Sage publications
- Hundeide, K. (2003): *Barns livsverden. Sosiokulturelle rammer for barns utvikling*. Oslo: Cappelen Akademisk Forlag.
- Jane, LG & Cheryl, D (2006) 'The Psychosocial Experiences of a Student with Low Vision', *Journal of Visual Impairment and Blindness*, American Foundation for the Blind, March 2006.
- Jarvis, P. (2002) *The theory and practice of teaching*. London: Routledge.
- Jindal-Snape, D. (2004). Generalization and Maintenance of Social Skills of Children with Visual Impairment: Self-evaluation and Role of Feedback. *Journal of Visual Impairment and Blindness*, 98 (8), 470-483.
- Johnsen, B.H (2001) "Curricula for the Plurality of Individual Learning Needs" In Johnsen, BH and Skjørten, MD (eds) *Education- Special Needs Education: an Introduction*. Oslo: Unipub Forlag
- Kaambamkandzanja, D. (2005) "Malawi Primary Curriculum and Assessment Reform (PCAR): The Process, The Challenges and the Way Forward". *Malawi National Education Conference*. Lilongwe. 29<sup>th</sup> March to 1<sup>st</sup> April, 2005
- Kalua, K. (2007) *More than 10,000 Blind people in Malawi* [Online] Available from: <http://khumbokalua.blogspot.com/2007/11/more-than-10000-blind-people-in-malawi.html> (Accessed on 29th, december, 2008).
- Kirk, S. A; Gallagher, J.J & Anastasiow, N. J (2003), *Educating exceptional children*. New York: Houghton Mifflin company. Boston.
- Klafki, W (2000) "Didaktik Analysis as the Core of Preparation of Instruction", In Westbury, I, Hopmann, S, og Riquarts, K.: *Teaching as a reflective practice*. New Jersey
- Klein, PS (2001) *Seeds of Hope: Twelve Years of Early Intervention in Africa*. Oslo: Unipub Forlag,
- Klingberg, L. (1995). *Lehren und Lernen – Inhalt und Methode. Zur Systematik und Problemgeschichte didaktischer Kategorien*. Oldenburg: Carl von Ossietzky Universität Oldenburg.

- Knight, BA (1999) "Inclusion: Towards Inclusion of Students with Special Educational Needs in the Regular Classroom", *Support for Learning*, vol. 14, no.1, pp. 3-7.
- Kozulin, A. (1995) "Mediated Learning Experience and Psychological Tools: Vygotsky and Feuerstien`s Perspective" in a *Study of Student Learning* Volume 3, viewed 28 November 2007, <[www.questia.com](http://www.questia.com)>.
- Kvale, S (1996) *Interviews: An introduction to Qualitative Research Interviewing*. London: Sage Publications
- Kvale, S. (2001) *Det kvalitative forskningsintervju*. Oslo: Gyldendal Norsk Forlag AS.
- Law, D. (2006) "Wonders never cease". *The Journal of the Chartered Institute of Library and Information Professionals in Scotland*. 4 (3)
- Lie, I (1998) *Syn og synsprolemer*. Oslo: Pensumtjenesten.
- Lipsky, D.L. & Gartner, A. (1997) *Inclusion and School Reform: Transforming Americas classrooms*. London: Paul Brookes.
- Lompscher, J. (1999) "Learning activities and its formation-Ascending from the abstract to the concrete", in Hedegaard, M and Lompscher, J. *Learning activity and development*. Oxford: Aarhus University Press.
- Lund, I. (2004) *Hun sitter jo bare der! Om innagerende atferd hos barn og unge*. Bergen: Fagbokforlaget
- Malderez, A.,& Bodóczyk, C. (1999). *Mentor Courses: A resource for trainer-trainers*, Cambridge: Cambridge University press
- Marks, S. and Clapham. A.(2005) *International Human Rights Lexion*. Oxford: Oxford University Press.
- Mason, J. (2002) *Qualitative researching*. London: SAGE Publications.
- Mason, H., McCall, S., Arter, C., McLinden, M. & Stone,J. (1997). *Visual Impairment Access to Education for Children and Young people*. London: David Fulton.
- Maxwell, JA (1992) "Understanding and Validity in Qualitative Research," *Harvard Educational Review*, vol. 32, no. 3, pp. 279-300.
- McCall, S. (2006) *Making Inclusion Work* [Online] Available from: <http://www.icevi-europe.org/tt/tw3/topic4.html#b> (Accessed on 14<sup>th</sup> january, 2008).
- McCoy, KM (1995) *Teaching Special Learners in the General Classroom*. Denver: Love.
- Mercer, CD & Mercer, AR (1998) *Teaching Students with Learning Problems*, London: Prentice Hall.
- Merriam,S.B. (1998) *Qualitative research and case study application in education*. San Francisco: Jossey-Bass
- Ministry of Education (2007) *Special Needs Education* [online] Available from: <http://www.malawi.gov.mw/Education/HomeSpecialNeeds.htm> (Government of Malawi) (Accessed on 8<sup>th</sup> january, 2009)

- Ministry of Education Science and Technology (2001) *Policy and Investment (PIF)* [Online] Available from: <http://malawi-tourism-association.org.mw/edu/new/min-education/whole.htm> (Government of Malawi) (Accessed on 28th March, 2009).
- Minto, H., Bailey, I., Keeffe, J., Dube, P., Ali, A.M. & Rashid, Z. (2005) *Rapid Assessment of Children with Low Vision and Refractive Errors in Malawi Integrated Education Programme*. Lilongwe.
- Mitchell, D (ed) (2005) *Contextualizing Inclusive Education. Evaluating old and new international perspectives*. London: Routledge.
- Mitchell, D (2008) *What really works in special and inclusive education: Using evidence-based teaching strategies*. London: Routledge
- Mushoriwa, T. (2001) A study of attitudes of primary school teachers in Harare towards the inclusion of blind children in regular classes. *British Journal of Special Education*, 28 (3), 142-147.
- Mutasa, J (1999) "Challenges that Educators Meet when Teaching Students Hearing Impairment at Resource Units in Harare, Zimbabwe," Master Thesis, University of Oslo.
- Nsapato, L. (2005) "Factors affecting the quality of Basic Education in Malawi". *Malawi National Education Conference*. Lilongwe. 29<sup>th</sup> March to 1<sup>st</sup> April, 2005
- OECD (1999) *Inclusive Education at Work; Students with disabilities in mainstream schools*. Paris, center for education research and innovation.
- Palincsar, A. & Brown, A. (1985). "Reciprocal teaching: activities to promote 'reading with your mind'". In Harris, T. & Cooper, E.(eds). *Reading, Thinking, and Concept Development: Strategies for the Classroom*. NY, College Board Public.
- Pararajasagaram P.R. (2007) *The Inaugural World Congress of Refractive Error and Service Development*. [Online] Available from <http://www.icee.org/events/congress.asp> (Accessed on 12th, january, 2009)
- Parsons, S (1986) "Function of Play in Low Vision Children (Part I): a review of the research and literature", *Journal of Visual Impairment and Blindness*, 80(3), 627-630.
- Patton, M. Q. (1990). *Qualitative evaluation and research methods*. (2<sup>nd</sup> ed.). Newbury Park, CA: Sage Publications.
- Patton, MQ (2001), *Qualitative Evaluation and Research Methods*, 2nd edn. Newbury Park CA: Sage Publications.
- Pijl, S.J., Meijer, C.J.W, & Hegaty, S. (1997), *Inclusive Education, A global agenda*. London: Routledge.
- Porter, J., Lacey, P., (2008) Safe-guarding the needs of children with a visual impairment in non-VI special schools. *British Journal of Visual Impairment*, 26 (1), pp. 50-62.
- Putnam, JW (1993) *Co-operative learning and Strategies for Inclusion*, Baltimore: Paul H. Brooks Publishing Company.

- Ringdahl, K. (2001) *Enhet og mangfold. Samfunnsvitenskapelig forskning og kvantitative metode*. Bergen: Fagbokforlaget.
- Roberts, R & Mather, N. (1995). "The return of students with learning disabilities to regular classrooms: A sellout?" *Learning Disabilities Research and Practice*, 10, 46-58.
- Robson, C (1993) *Real World Research: A Resource for Social Scientist and Practitioner Researchers*. Oxford: Blackwell.
- Robson, S. & Kanyanta, S. B. (2007) "Moving towards inclusive education policies and practices? Basic Education for Aids and other vulnerable children in Zambia". *International Journal of Inclusive Education*, 11 (4), 417 – 430.
- Rogoff, B (1990) *Apprenticeship in Thinking Cognitive Development in Social Context*. New York: Oxford University Press,
- Rogoff, B., Matusov, B., and White, S. (1996). "Models of Teaching and Learning: Participation in a Community of Learners". In D. Olson & N. Torrance (eds.), *The Handbook of Cognition and Human Development*. Oxford, UK: Blackwell.
- Romi, S & Leyser, Y (2006) "Exploring inclusion pre-service training needs: a study of variables associated with attitudes and self efficacy beliefs", *European Journal of Special Needs Education*, vol. 21, no.1, p. 85.
- Rye, H (2001) 'Helping Children and Families with Special Needs: A Resource Oriented Approach Article', in *Education Special Education: An Introduction*. Oslo: Unipub Forlag, pp. 65-130.
- Rye, H. (2007). *Barn med spesielle behov: et relasjonsorientert perspektiv*. Oslo: Gyldendal Akademiske.
- Savage, TV (1999) *Teaching Self-Control Through Management and Discipline*. Boston: Allyn and Bacon
- Schloss, P.J., & Smith, M.A. (1994). *Applied behavior analysis in the classroom*. Boston: Allyn & Bacon.
- Schoefield, J.W. (1990) "Increasing the generalizability of qualitative research", in Eisner, E.W AND Peshin, A. (ed) *Qualitative inquiry in education*. New York: Teachers College Press.
- Sheppard & Aldrich, (2001) Tactile graphics in school education: perspectives from teachers. *British Journal of Visual Impairment*, 19 (3), 93 - 97.
- Sight Savers International (2007) *Working with Teachers* [Online] Available from: <http://www.sightsavers.org/What%20We%20Do/Education/Working%20with%20Teachers> (Accessed on 22<sup>nd</sup> march, 2009).
- Sight Savers-Malawi (2007) *Childhood Blindness. Low Vision Initiative Briefing and Planning Workshop*. Blantyre, 8<sup>th</sup> & 9<sup>th</sup> January, 2007.
- Silverman, D (2004) *Qualitative Research: Theory, Method and Practice*. London: SAGE Publications.
- Skaalvik, E.M. (1999) *Faglige og Sosiale stottetiltak. Pedagogisk Institutt*. Norges teknisk naturvitenskapelige universitet( NTNU)

- Skjørten, MD. (1997) *Concepts in Special Needs Education*, Kampala: UNISE.
- Smith, B.O. (1987). "Definitions of teaching". In M.J. Dunkin (Ed.), *The International Encyclopedia of Teaching and Teacher Education*. Oxford: Pergamon Press.
- Smith, R.M. (2006) Class management texts: study in the representation and misrepresentation of students with disabilities. *International Journal of Inclusive Education* 10 (1) 91- 104.
- Stainback, S. and Stainback, W. (1992) *Curriculum consideration in inclusive classrooms: Facilitating learning for all students*. Baltimore: Brooks
- Steketee, C. (1997). "Conceptions of learning held by students in the lower, middle and upper grades of Primary school". *Proceedings Western Australia Institute for Educational Research (WAIER) Forum of 1997*.  
<http://education.curtin.edu.au/waier/forums/1997/steketee.html>.
- Suka, A. (2006) *Violence against Blind/VI girls in Malawi* [Online]. Available from:  
<http://wecando.wordpress.com/2007/10/06/violence-against-blindvi-girls-in-malawi/> (Accessed on 14<sup>th</sup>, April, 2009)
- Thagaard, T. (2003) *Systematikk og innlevelse. Ein innføring I kvalitaiv metode*. Bergen: Fagbokforlaget.
- Tomlinson, C. (1995). *How to differentiate instruction in mixedability classrooms*. Alexandria, VA: Association for Supervision and Curriculum Development. ED 386 301.
- Torch Trust (2004) *Directory of Christian services for Blind and Partially Sighted People* [Online] Available from:  
<http://www.torchtrust.org/downloads/international-directory.doc> (Accessed on 20th, february, 2009)
- Trevarthen C., Aitken K.J. (2001): "Infant Intersubjectivity: Research, Theory, and Clinical Applications". In: *Journal of Child Psychology*. Vol. 42, No. 1, 3-48.
- Uljens, M. (1997). *School Didactics and Learning. A School Didactic Model Framing an Analysis of Pedagogical Implications of Learning Theory*. Hove, East Sussex: Psychology Press.
- UNESCO (1994) *The Salamanca Statement and Framework for Action on Special Needs Education*. UNESCO, Paris.
- UNESCO (2001). *Including the excluded: Meeting diversity in education. Example from Uganda: Combating Exclusion in Education*. UNESCO: Paris
- UNESCO (2004), *The Development of Education in Malawi 2004 Report for the 47<sup>th</sup> Session of the International Conference on Education*. 7<sup>th</sup> to 11<sup>th</sup> September, 2004
- UNESCO (2005) *Open File on Inclusive Education Support Material for Managers and Administrators*. UNESCO, Paris.
- UNESCO (2008) *EFA Global Monitoring Report, Education For All by the year 2015 – Will we make it?* Oxford: Unesco Publishing

UNESCO APPEAL (1998) *Wasted Opportunities: When Schools Fail. Education for All. Status and Trends*. UNESCO: Paris:

University of Strathclyde (2005) *Scottish Executive Funding for Malawi Project, Press Release*[Online] Available from: [http://www.strath.ac.uk/press/newsreleases/2005/headline\\_28287\\_en.html](http://www.strath.ac.uk/press/newsreleases/2005/headline_28287_en.html) (Accessed on 30<sup>th</sup> march, 2009)

USAID-Malawi (2003) *Malawi Education Support Activity (MESA)* [Online]. Available from: [http://www.equip123.net/equip1/MESA\\_Bkgd.htm](http://www.equip123.net/equip1/MESA_Bkgd.htm) (Accessed on 10th January, 2009).

Valberg, A. and P. Fosse(1999) "Synsprøving og WHO's kategorier for synshemming" In *Synsforum*. 1, 1999,S. 9-13.

Veslie, L. (2003) "From integration to Inclusion: Focusing global trends and changes in the western european societies". *European journal of Special Needs Education*. 18(1), 17-35.

Vlachou, A. (2004) Education and Inclusive Policy making: Implications for research and practice. *International Journal of Inclusive Education*. 8 (1) 3 -20.

Vygotsky, L. (1956). *Selected Psychological Investigations*. Moscow: Izdstel'sto Pedagogical Academy.

Vygotsky, L.S (1978) *Mind in Society: The Development of Higher Psychological Processes*. Cambridge: Harvard University Press.

Wallace, J. and Louden, W. (2002) *Dilemmas of science teaching: perspectives on problems of practice*. London: Routledge/Falmer

Walker, HM & Walker, JE (1991) *Coping with Non-Compliance in the Classroom: A Positive Approach for Teachers*. Austin: Pro-Ed, TX.

Webster, A & Roe, J (1988) *Children with Visual Impairments*. London: Routledge.

Westwood, P (1997) *Commonsense Methods For Children with Special Needs*. London: Routledge,

Wilhelmsen, Gunvor B. (2000) *Visuelle forstyrrelser etter hjerneslag. En undersøkelse av synsfunksjonen og effekten av synstrening* Oslo: Unipub forlag

Wolfendale, S., (1993) *Primary Schools and Special Needs*. London: Cassel Educational Limited.

Yin, R. (2003) *Case study research: Design and Methods*, 2<sup>nd</sup> Edition. London: SAGE Publications.

## **Appendix A. Historical background of special needs education in Malawi.**

This study was carried out in the Republic of Malawi, which is located in the Southern Central Africa, with an area of 118,480 square kilometers with nearly one-fifth of it being water surface; mainly Lake Malawi (24,280 square Km) . It is bounded by Tanzania in the north east, Zambia in the north-west and Mozambique in the south east and west. DFID-Malawi (2007) reflected on National Statistical Office (NSO) 2003 estimates that the entire population of Malawi is 12 million with about 44 % of the national population consisting of children and youth under 15 years, 51 % of the total population being female, a literacy rate of 60% and life expectancy as low as 38 years due to HIV/AIDS and Malaria. The 1998 Population and Housing Census conducted by the National Statistics Office further revealed that the disability population is distributed as follows: 18.2% physically impaired, 20.5% visually impaired, 8.5% intellectually impaired, 13.3% hearing impaired, 18.8% epileptic, 4.5% asthmatic and 16.2% others.

In Malawi, learners with SEN include children who fall into any of the following categories: sensory impairment (vision, hearing, deafblind); cognitive difficulties (intellectual, specific disabilities and gifted and talented); socio- emotional and behavioural difficulties (autism, hyperactivity and other vulnerable children); and physical and health impairments (spina bifida, hydrocephalus, asthma and epilepsy) (Ministry of Education –MoE, 2007). Malawi has four special schools for the deaf: Mua School, Dedza, Embangweni School for the deaf, Mzimba, Mountin View school, Mvumbwe . MATOCO, Malawi Total Communication School. All deaf schools are using oral teaching methods. Apart from MATOCO which uses a combination of oral and signs. There are two special schools for the blind, Chilanga School and Lulwe School. In addition, there are 13 resource centres for the blind in Malawi and are as follows: Montfort demonstration school in Chiradzulu district, Nazombe in Phalombe district, Matundu and Mpatsa in Nsanje district, Makande in Chikwawa district, Nkope in Mangochi district, Nsiyaludzu in Ntcheu district, Malingunde in Lilongwe district, Nkhota Kota in Nkhota- Kota district, Salima in Salima district, Ekwendeni in Mzimba district, St. Maria Goretti in Nkhata Bay district, St. Mary’s in Karonga district

Religious and charitable institutions have been instrumental in the development of education and SNE in particular. Christian Missionaries introduced formal education in the late 19th Century (ibid). The pioneers were the University Mission to Central Africa (1862; 1885), the Livingstonia Mission of the Free Church of Scotland; Blantyre Mission of Established Church

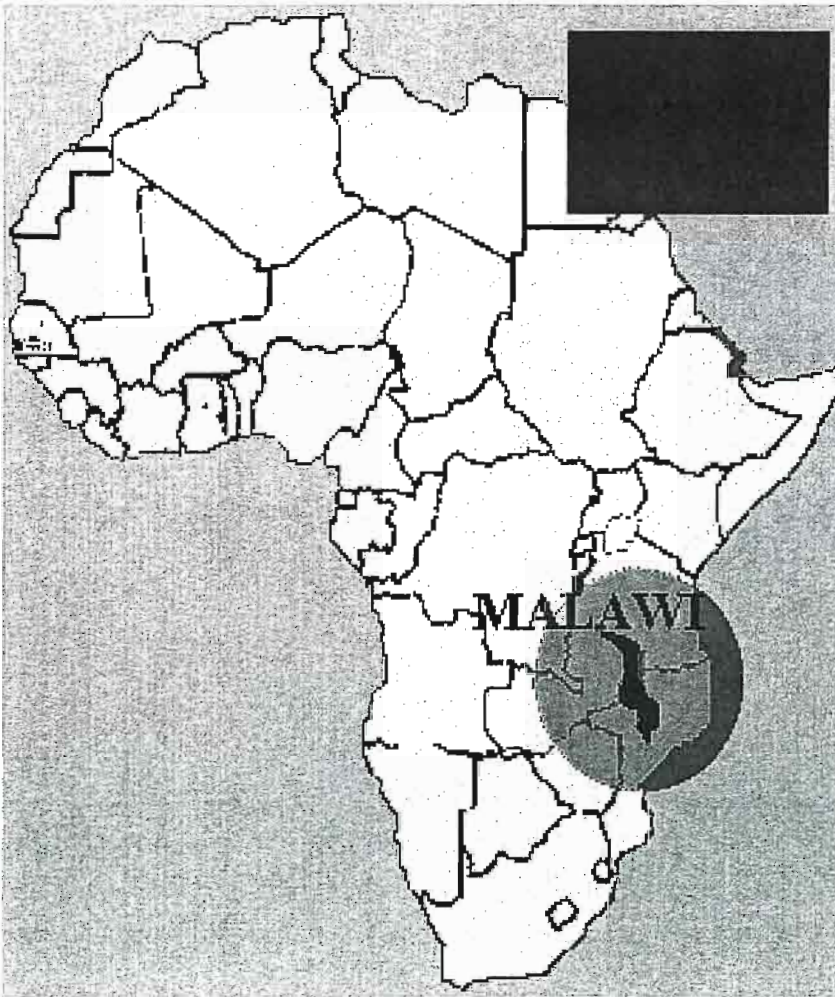


of Scotland (1875), the Zambezi Industrial Mission (1892), and the Roman Catholic Mission from 1902. Although each Mission had its own philosophy, the common curriculum areas were reading, writing, and rudimentary arithmetic. The inception of formal education in Malawi therefore did not include special education. The delivery of special education (SE) started in the 1950s, through the work of Evangelical Missionaries. The early SE schools were for children with VI at Lulwe in Nsanje (Southern Region of Malawi) and at Chilanga in Kasungu (Central Region of Malawi). Two were for children with Hearing Impairments and VI in Chiradzulu District (Southern Region of Malawi). Government initiatives in SE came late. The MoE developed the first Education Plan (1972-1980) in 1972. It underlined quality in primary and secondary education and access, relevance, and equity at the tertiary level. The services and materials, personnel and talent, elimination of repetition and dropping out, improvement of access, quality and equity, and production of top level man-power for government and the private sector (MoE, 2005). Both, however, failed to mention SNE. It was only in 1996 that the MoE established the LD programme. This was to address intellectual disabilities; specific learning difficulties; behavioural and emotional difficulties; language and communication difficulties and; physical and related health impairments. None of these initiatives, however, addressed teacher training for the delivery of SNE. Education for All policy has continued to be influential because Malawi is a signatory to the 1990 World Conference on Education for All held in Jomtien Thailand and the 1994 Salamanca Statement on inclusive education for all children with disabilities. Therefore Malawi committed itself to provide education for all children, youth and adults with special educational needs within the regular education system. Malawi further adopted the 2000 World Dakar framework of action, with a commitment to achieving accessibility of quality basic education for all by 2015. In the documents Policy and Investment Framework (2001) and Education for All (EFA) Strategy (2004), the Ministry of Education, emphasised the need to strengthen the support system of Special Needs Education.

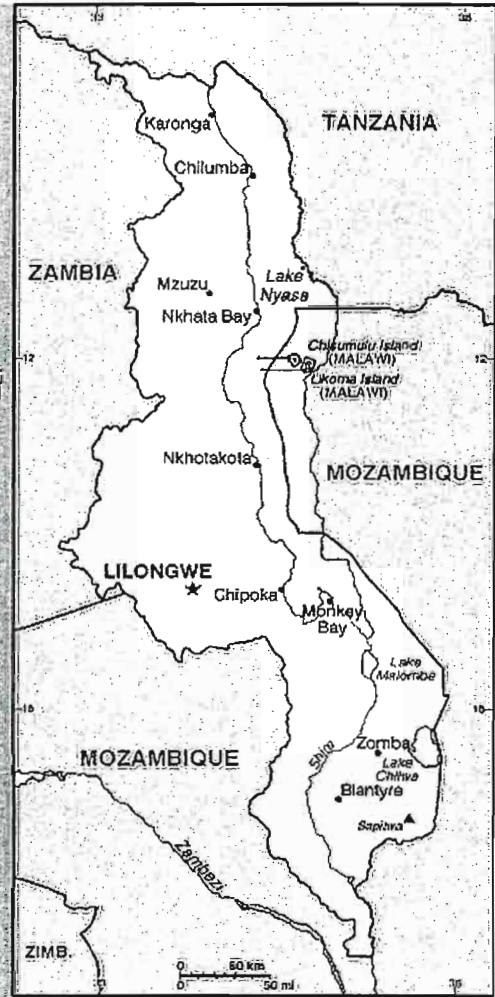
In Malawi children with visual impairment are grouped into two categories; Low Vision and blind . Learners with blindness as those who fully rely on tactile methods of learning while low vision children are referred as those who are taught through methods that rely on some sight. Low vision is viewed as an impairment of vision function even after treatment. Common causes of VI among children in Malawi include cataract, trachoma, malnutrition, vitamin A deficiency, measles, injuries and use of harmful traditional medicine.

Appendix B. Position of Malawi in Africa and the map of Malawi.

Map1. Africa showing position of Malawi



Map2. Malawi.



## **Appendix C. Observation guide.**

### **1. Outside environment**

Schoolyard condition for example tracks, staffroom, playground etc.

Sanitation facilities for example toilets

Other facilities for example library, Home economics laboratory. Does the school have these facilities?

### **2. Classroom observation**

Number of pupils: How many boys and girls? How many are visually impaired?

Classroom environment- table and chairs

Class sitting organization: sitting arrangement, position of VI children class

Ventilation and lighting

Class displays such as illustrations, maps, pupils work.

### **3. Lesson introduction**

Clearly defined content objectives for students

Clearly defined language objectives for students

Supplementary materials used to a high degree, making the lesson clear and meaningful (graphs, models, visuals)

Adaptation of language

Meaningful activities that integrate lesson

### **4. Instruction**

Concepts explicitly linked to students' background experiences

Links explicitly made between past learning and new concepts

Key vocabulary emphasized (e.g., introduced, written, repeated, and highlighted for pupils to see)

Explanation of tasks clear

Uses a variety of teaching techniques to make content concepts clear (e.g., modeling, visuals, hands-on activities, demonstrations, gestures, body language)

### **5. Strategies**

Provides ample opportunities for VI pupils to use strategies

Use of scaffolding techniques throughout lesson, assisting and supporting pupils understanding

Teacher uses a variety of question types throughout the lesson, including those that promote higher-order thinking skills throughout the lesson

Frequent opportunities for interactions and discussion between teacher/VI pupils and among sighted pupils, which encourage elaborated responses about lesson concepts

Providing opportunities for pupils to ask question

Provides hands-on materials and/or manipulatives for students to practice using new content knowledge

Content objectives clearly supported by lesson delivery

Students engaged in the lesson

Pacing of the lesson appropriate to the VI pupils' ability level Comments:

## **6. Review/Assessment**

Comprehensive review of key content concepts

Regularly provides feedback to students on their output (e.g., language, content, work)

Conducts assessment of student comprehension and learning of all lesson objectives (e.g., spot checking, group response) throughout the lesson

## **Appendix D. Interview Guide for regular classroom teachers**

1. Can you please introduce yourself, starting with level of education and years in service?
2. How long have you been teaching classes which have children who are visually impaired?
3. How many visual impaired children are in your class this year?
4. What is your experience in teaching visual impaired students in the regular classroom setting?
5. Did you have any course in how to teach children with special needs during your teacher training college?
6. Have there been any updating courses you have attended in relation to teaching children with visual impairments?
7. How is the arrangement for the teaching/ learning process for the VI children?
8. How Many special teachers are at this school?
  - a. Do VI children have extra/special classes with special teacher(s): If yes
  - b. When do they have these special classes? Is it during the class time or in the afternoon when classes are over?
  - c. In which subjects do they have special lessons? All/ or just some subjects?
  - d. What is your assessment of these special classes? Are they beneficial to the VIC or not?
9. How can you describe pupils with visual impairment in relation to:  
Class-activities participation  
Social relationship with others in the classroom
10. Can you describe the kind of relationship you have with the visual impaired students in relation to the subject you teach?  
Do they like the subject?  
Do they have any particular problems?
11. Describe the relationship of other teachers towards children with the visual impairment?
12. In preparing for the lessons: Which factors do you take into consideration when you are planning your lessons considering the fact that you have children who are visually impaired?

13. In selection of content: Do you just follow the syllabus as it is, or you do some readjustments in the selection of the content to accommodate those who are visually impaired?
14. Teaching methods and strategies: Which teaching methods do you use in most of your lessons? (a) Are you satisfied with the teaching method you use in relation to VI children?
15. Use of teaching aids and illustrations:
- What are some of the materials that a VI child require for his or her learning?
- Which teaching aids do you use in your lessons?
- What special considerations do you make for the VI children in relation to the use of illustrations in your lessons?
- Are you satisfied with the materials you use in your teaching and learning of VI children in your class?
16. Classroom arrangement: Is there any particular considerations to the sitting position of VI children in your class?
17. What kind of support do you give to the visual impaired students in the classroom situation in relation to:
- problem solving situations
- Is there any extra individualized explanations offered to VI learners?
- Are they given extra time to do the work?
- What happens in taking notes, who reads the notes to them?
- What about in drawings i.e map drawing and map reading?
- In interaction with others
- Do VI children have many or few friends in the classroom?
- Do they get help from other peers during learning process?
18. How do you facilitate interaction and communication between visual impaired students and sighted peers in the classroom activities?
19. What kind of support do you get from others such as your colleagues, administrators and professionals?
20. Are you satisfied with the support you get?
21. In assessment:
- How are the VIC assessed in relation to the sighted children?
- How is their performance like? one by one: ie, excellent, good/average or poor?

Where they succeed, what are the factors that make them do so?

Where they do not, what are the things that hinder them from doing well?

22. What are your successes in teaching students with visual impaired students?

23. What are your challenges in teaching students with visual impaired students?

24. What are some of the recommendations that you think would make positive impact on the teaching and learning of pupils with visual impairment in particular?

**Reflection questions to the teacher soon after finishing a lesson.**

- Which factors did you take into consideration when you were preparing for this lesson in relation to children with visual impairments?
- Have you done such an activity with this theme before?
- Could it have been carried out in another way in order to facilitate the participation of VI children?
- What was positive about the lesson in relation to VIC?
- Anything negative?
- How do you think the VI pupils experienced the lesson?
- Could you reflect on the VI pupils' commitment?
- What do you think the pupils will remember from the lesson?



Volda University College  
Faculty of Education  
Department of Special Needs Education  
6101 Volda  
Norway.

Volda, February 3. 2009

### TO WHOM IT MAY CONCERN

This is to certify that JENNIPHER MBUKWA is a full-time student pursuing a course of study at the department of Special Needs Education at Volda University College, Norway, leading to the degree of Master in Special Needs Education.

This student will be returning to her home country, Malawi in February for her data collection for her research until end March, 2009. The topic of her study is: *Inclusion of children with visual impairment in regular primary schools in Malawi*. It is an investigation of the experiences primary school teachers have in teaching regular classes with visual impaired children. The student will then return to Norway for the write up of the thesis. This thesis will be submitted in June, 2009. The main responsibility for supervision of the research, developmental work and thesis remains with the department of Special Needs Education, Volda University College, Norway. This research will be carried out with ethical consideration on the participants according to the research rules and regulations of Malawi. Participation is voluntary and participants' identity will not be revealed in the writing up, instead codes and pseudo names will be used in the study. Raw data given will be kept confidential.

We therefore kindly request that the relevant authorities give the student the access required to the schools and educational establishments necessary in order to undertake field work and research. We would be most grateful for any assistance that is afforded to the student which enables her to carry out this work, particularly the use of facilities such as access to computer services and libraries at the various educational establishments.

Yours sincerely,

Peder Haug, professor